PIONEER®
The Art of Entertainment

Service Manual

ORDER NO.
RRV1798

FILE - TYPE CD PLAYER

PD-F706

● **Refer to the service manual RRV1522 for PD-F705/WYXJ, WPWXJ and RDXJ.**

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	The voltage can be converted by the following method.
	PD-F706		
WYXJ	○	AC220 - 240V	————
WPWXJ	○	AC220 - 240V	————
RDXJ	○	AC110 - 127V / 220 - 240V	With the voltage selector

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T–ZZY APR. 1997 Printed in Belgium

1. CONTRAST OF MISCELLANEOUS PARTS

NOTES :
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing,be sure to use parts of identical designation.*
- *Ref. No. : Numbers following P and hyphen (-) indicate the page(s) and location number(s) in the RRV1522 service manual, respectively.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*

560Ω	→	*56 x 10¹*	→	*561* ..... *RD1/4PU [5][6][1] J*
47kΩ	→	*47 x 10³*	→	*473* ..... *RD1/4PU [4][7][3] J*
0.5Ω	→	*R50*		..... *RN2H [R][5][0] K*
1Ω	→	*1R0*		..... *RS1P [1][R][0] K*

Ex. 2 *When there are 3 effective digits (such as in high precision metal film resistors).*

5.62kΩ	→	*562 x 10¹*	→	*5621* ..... *RN1/4PC [5][6][2][1] F*

■ CONTRAST OF PD-F706/WYXJ AND PD-F705/WYXJ

PD-F706/WYXJ AND PD-F705/WYXJ have the same construction except for the following:

Ref. No.	Mark	Symbol & Description	Part No.		Remarks
			PD-F705/ WYXJ	PD-F706/ WYXJ	
		PACKING			
P5 - 1		Operating Instructions (English)	PRB1236	PRB1256	
		Operating Instructions (French/German/Italian/Dutch/Swedish/ Spanish/Portuguese)	PRD1007	PRD1019	
P5 - 8		Protector F	PHA1299	PHA1309	
P5 - 9		Protector R	PHA1300	PHA1310	
P5 - 10		Packing Case	PHG2194	PHG2261	
		EXTERIOR			
P6 - 1	⚠	Mother PCB Assy	PWM2001	PWM1997	
P6 - 2	NSP	Function PCB Assy	PWZ3154	PWZ3141	
P6 - 8		Bonnet	PYY1187	PYY1225	
P6 - 10		Rear Base	PNA2292	PNA2357	
P6 - 15		Home Lock Angle	PNB1548	PNB1580	
P7 - 37	NSP	GM Mechanism	AXA7026	Not used	
P7 - 37	NSP	GS Mechanism	Not used	AXA7047	
P7 - 47		Door	PNW2616	PNW2731	
P7 - 48		Panel	PNW2657	PNW2739	

■ CONTRAST OF PD-F706/WPWXJ AND PD-F705/WPWXJ

PD-F706/WPWXJ AND PD-F705/WPWXJ have the same construction except for the following:

Ref. No.	Mark	Symbol & Description	Part No.		Remarks
			PD-F705/ WPWXJ	PD-F706/ WPWXJ	
		PACKING			
P5 - 1		Operating Instructions (English)	PRB1236	PRB1256	
P5 - 8		Protector F	PHA1299	PHA1309	
P5 - 9		Protector R	PHA1300	PHA1310	
P5 - 10		Packing Case	PHG2195	PHG2262	
		EXTERIOR			
P6 - 1	⚠	Mother PCB Assy	PWM2003	PWM1999	
P6 - 2	NSP	Function PCB Assy	PWZ3154	PWZ3141	
P6 - 8		Bonnet	PYY1187	PYY1225	
P6 - 10		Rear Base	PNA2293	PNA2358	
P6 - 15		Home Lock Angle	PNB1548	PNB1580	
P7 - 37	NSP	GM Mechanism	AXA7026	Not used	
P7 - 37	NSP	GS Mechanism	Not used	AXA7047	
P7 - 47		Door	PNW2616	PNW2731	
P7 - 48		Panel	PNW2657	PNW2739	

■ CONTRAST OF PD-F706/RDXJ AND PD-F705/RDXJ

PD-F706/RDXJ AND PD-F705/RDXJ have the same construction except for the following:

Ref. No.	Mark	Symbol & Description	Part No.		Remarks
			PD-F705/ RDXJ	PD-F706/ RDXJ	
		PACKING			
P5 - 1		Operating Instructions (English/Spanish/Chinese)	PRE1228	PRE1260	
P5 - 8		Protector F	PHA1299	PHA1309	
P5 - 9		Protector R	PHA1300	PHA1310	
P5 - 10		Packing Case	PHG2195	PHG2262	
		EXTERIOR			
P6 - 1	⚠	Mother PCB Assy	PWM2004	PWM1998	
P6 - 2	NSP	Function PCB Assy	PWZ3154	PWZ3141	
P6 - 8		Bonnet	PYY1187	PYY1225	
P6 - 10		Rear Base	PNA2294	PNA2359	
P6 - 15		Home Lock Angle	PNB1548	PNB1580	
P7 - 37	NSP	GM Mechanism	AXA7026	Not used	
P7 - 37	NSP	GS Mechanism	Not used	AXA7047	
P7 - 47		Door	PNW2616	PNW2731	
P7 - 48		Panel	PNW2657	PNW2739	

GS Mechanism

GS Mechanism (AXA7047) and GM Mechanism (AXA7026) have the same construction except for the following:

Ref. No.	Mark	Symbol & Description	Part No.		Remarks
			AXA7026	AXA7047	
P11 - 1	NSP	Mecha PCB Assy	AWZ7835	AWZ8802	
P11 - 33		LED Lens	ANW7072	Not used	

■ CONTRAST OF PCB ASSEMBLIES

MOTHER PCB Assy (For WYXJ type)

PWM1997 and PWM2001 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		PWM2001	PWM1997	
⚠	IC351 C441,C442 R385,R386	PD4674B PCL1030 (1500pF) RD1/4PU221J	PD4857A CQMA152J50 Not used	

MOTHER PCB Assy (For WPWXJ type)

PWM1999 and PWM2003 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		PWM2003	PWM1999	
	IC351 C441,C442 R385,R386	PD4674B PCL1030 (1500pF) RD1/4PU221J	PD4857A CQMA152J50 Not used	

MOTHER PCB Assy (For RDXJ type)

PWM1998 and PWM2004 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		PWM2004	PWM1998	
⚠	IC351 C441,C442 R385,R386	PD4674B PCL1030 (1500pF) RD1/4PU221J	PD4857A CQMA152J50 Not used	

FUNCTION PCB Assy

PWZ3141 and PWZ3154 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		PWZ3154	PWZ3141	
	R701 - R704	RD1/4PU103J	Not used	

Mecha PCB Assy

AWZ8802 and AWZ7835 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ7835	AWZ8802	
	D651 R652	VRPG5615S ACN7011 (10kΩ)	Not used ACN7012 (56kΩ)	

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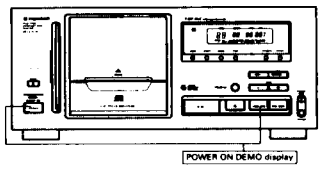
Service Manual



ORDER NO.
RRV1522

FILE-TYPE CD PLAYER

PD-F705

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	The voltage can be converted by the following method.
	PD-F705		
KUXJ	O	AC120V	———
KCXJ	O	AC120V	———
WPWXJ	O	AC220 – 240V	———
WYXJ	O	AC220 – 240V	———
RDXJ	O	AC110 – 127V/220 – 240V	With the voltage selector

- **For the circuit and mechanism descriptions, refer to the service guide RRV1469 for PD-F705.**

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

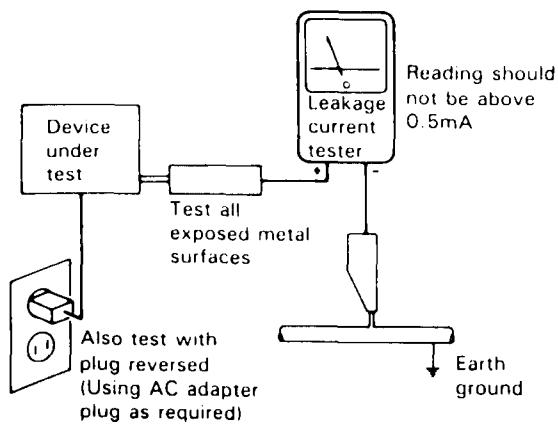
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
Device under test
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

VARO!
AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

ADVERSEL:
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSAETTELSE FOR STRÅLING.

VARNING!
OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.

LASER
Kuva 1
Lasersateilyn varoitusmerkki

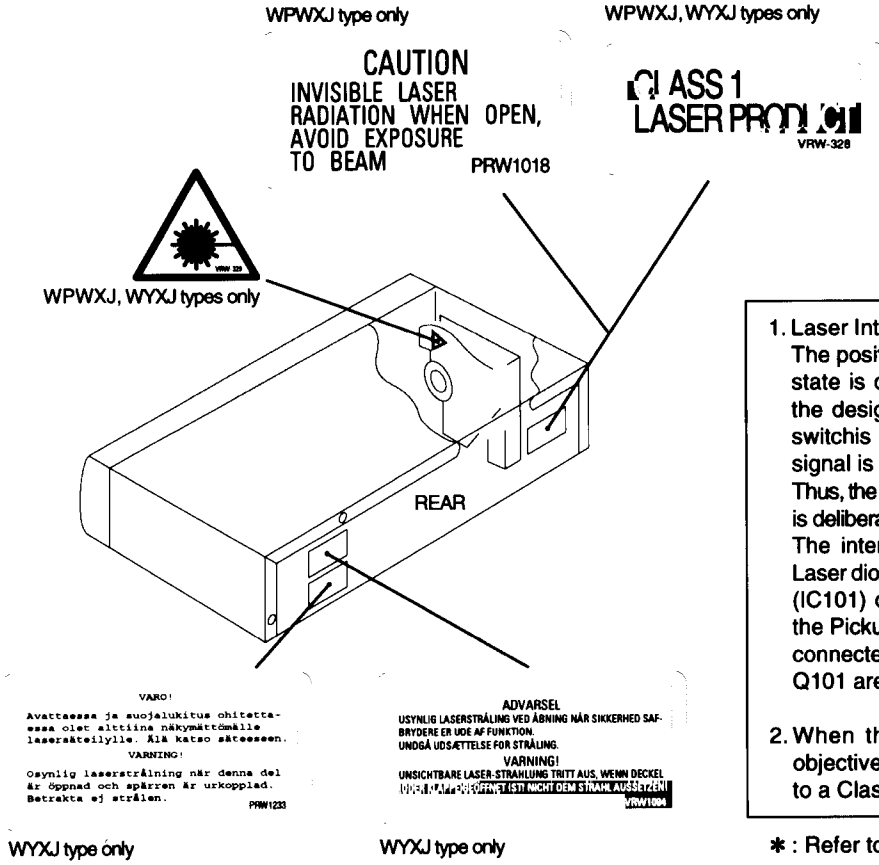
WARNING!
DEVICE INCLUDES LASER DIODE WHICH EMITS INVISIBLE INFRARED RADIATION WHICH IS DANGEROUS TO EYES. THERE IS A WARNING SIGN ACCORDING TO PICTURE 1 INSIDE THE DEVICE CLOSE TO THE LASER DIODE.

IMPORTANT
THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS
MAXIMUM OUTPUT POWER: 5 mw
WAVELENGTH: 780-785 nm

LASER
Picture 1
Warning sign for laser radiation

LABEL CHECK(for WPWXJ and WYXJ types)



Additional Laser Caution

1. Laser Interlock Mechanism
   The position of the switch (S651) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switchis (S651) is not on $\overline{\text{CLMP}}$ terminal side ($\overline{\text{CLMP}}$ signal is OFF or high level).
   Thus, the interlock will no longer function if the switch (S651) is deliberatery set to $\overline{\text{CLMP}}$ terminal side. (low level)
   The interlock also does not function in the test mode ✱.
   Laser diode oscillation will continue, if pin 1 of M51593FP (IC101) on the PRE-AMP BOARD ASSY mounted on the Pickup assembly is connected to GND, or pin 19 is connected to low level (ON), or else the terminals of Q101 are shorted to each other (fault condition).

2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

✱ : Refer to page 28.

2. DISASSEMBLY

■ REMOVE THE FRONT PANEL

① Remove the bonnet.
② - ④ Remove the screws and parts.

Note: Remove the screw in step ④ with the hood closed.

④ Remove the screw and link in step ④ from the disc rack boss, then remove the hook from panel angle.

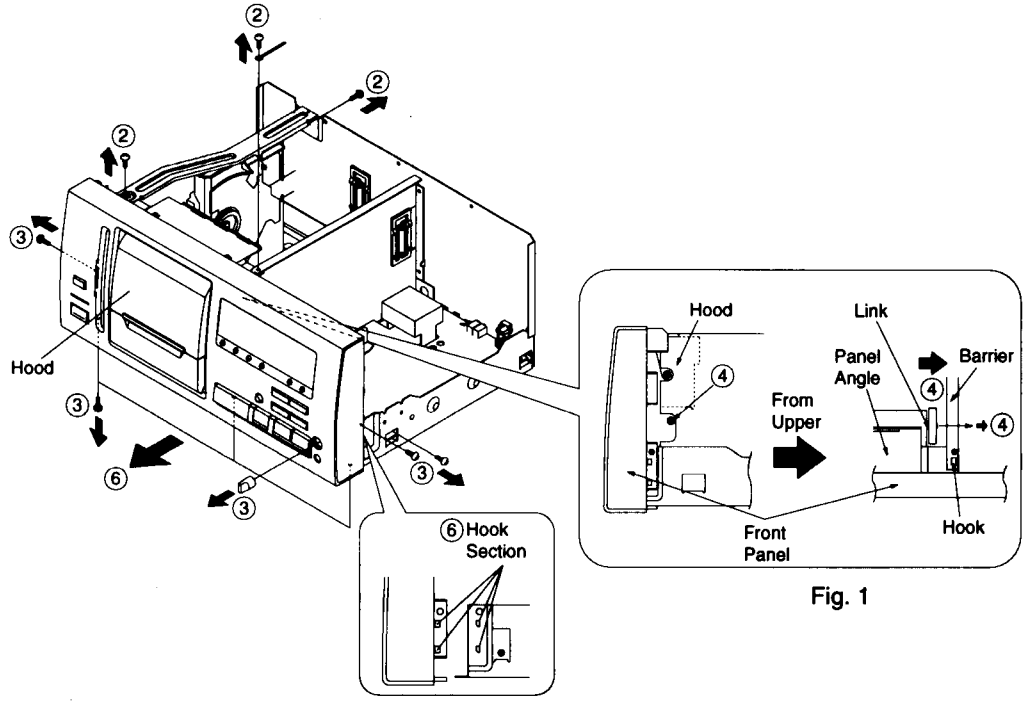


Fig. 1

Fig. 2

⑤ Remove each wire.

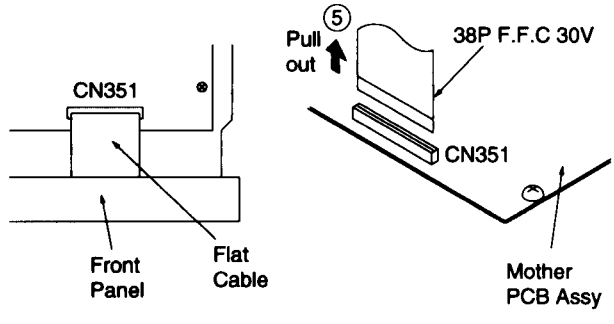


Fig. 3

⑥ Remove the front panel, then shift the front panel slightly toward you while paying attention to the right and left hooks on the chassis. (Fig.2)

3. PACKING AND PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

■ CONTRAST OF KUXJ, KCXJ, WPWXJ, WYXJ AND RDXJ TYPES

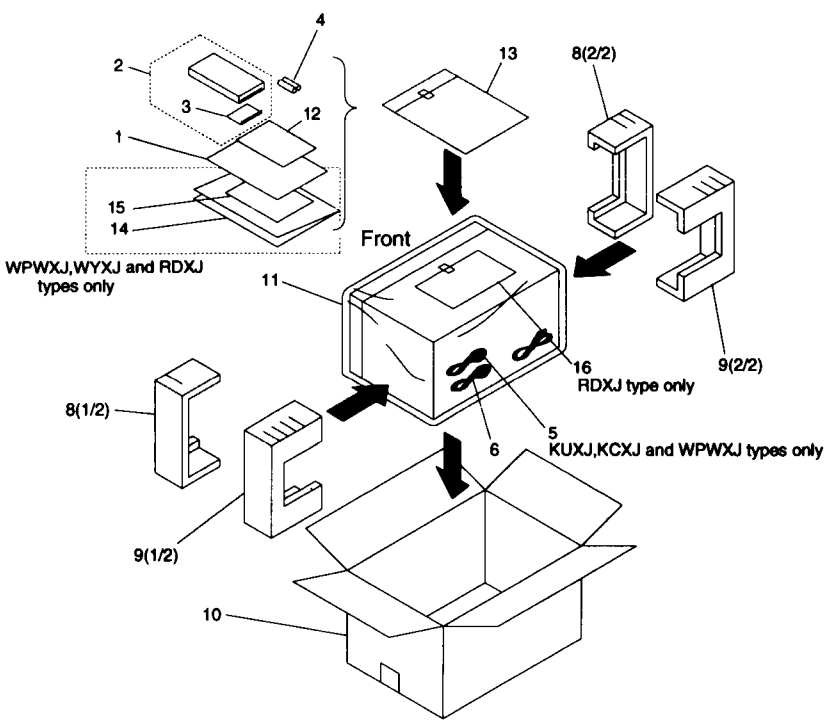
PD-F705/KUXJ, KCXJ, WPWXJ, WYXJ and RDXJ have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.					Remarks
			KUXJ TYPE	KCXJ TYPE	WPWXJ TYPE	WYXJ TYPE	RDXJ TYPE	
	1	Operating Instructions(English)	PRB1236	Not used	PRB1236	PRB1236	Not used	
	1	Operating Instructions (English/French)	Not used	PRE1227	Not used	Not used	Not used	
	1	Operating Instructions (English/Spanish/Chinese)	Not used	Not used	Not used	Not used	PRE1228	
	1	Operating Instructions (French/German/Italian/Dutch/ Swedish/Spanish/Portuguese)	Not used	Not used	Not used	PRD1007	Not used	
	5	Cord with Mini Plug	PDE1247	PDE1247	PDE1247	Not used	Not used	
	10	Packing Case	PHG2161	PHG2168	PHG2195	PHG2194	PHG2195	
NSP	12	Warranty Card	ARY1051	ARY1075	PRY1003	ARY7009	Not used	
	14	Liner Notes File 25	Not used	Not used	PHN1051	PHN1051	PHN1051	
	15	Index Label 25	Not used	Not used	PRW1422	PRW1422	PRW1422	
	16	CAUTION 220V LABEL	Not used	Not used	Not used	Not used	ARR1003	

■ PARTS LIST FOR PD-F705/KUXJ

Mark	No.	Description	Parts No.
	1	Operating Instructions (English)	PRB1236
	2	Remote Control Unit	PWW1108
	3	Battery Cover	AZN2249
NSP	4	Battery (R6P, AA)	AEX – 010
	5	Cord with Mini Plug	PDE1247
	6	Cord with Plug	PDE1248
	7	.....	
	8	Protector F	PHA1299
	9	Protector R	PHA1300
	10	Packing Case	PHG2161
	11	Packing Sheet	AHG7010
NSP	12	Warranty Card	ARY1051
	13	Polyethylene Bag	Z21 – 038
	14	.....	
	15	.....	
	16	.....	

PACKING



4. EXPLODED VIEWS AND PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

4.1 EXTERIOR

■ CONTRAST OF KUXJ, KCXJ, WPWXJ, WYXJ and RDXJ TYPES

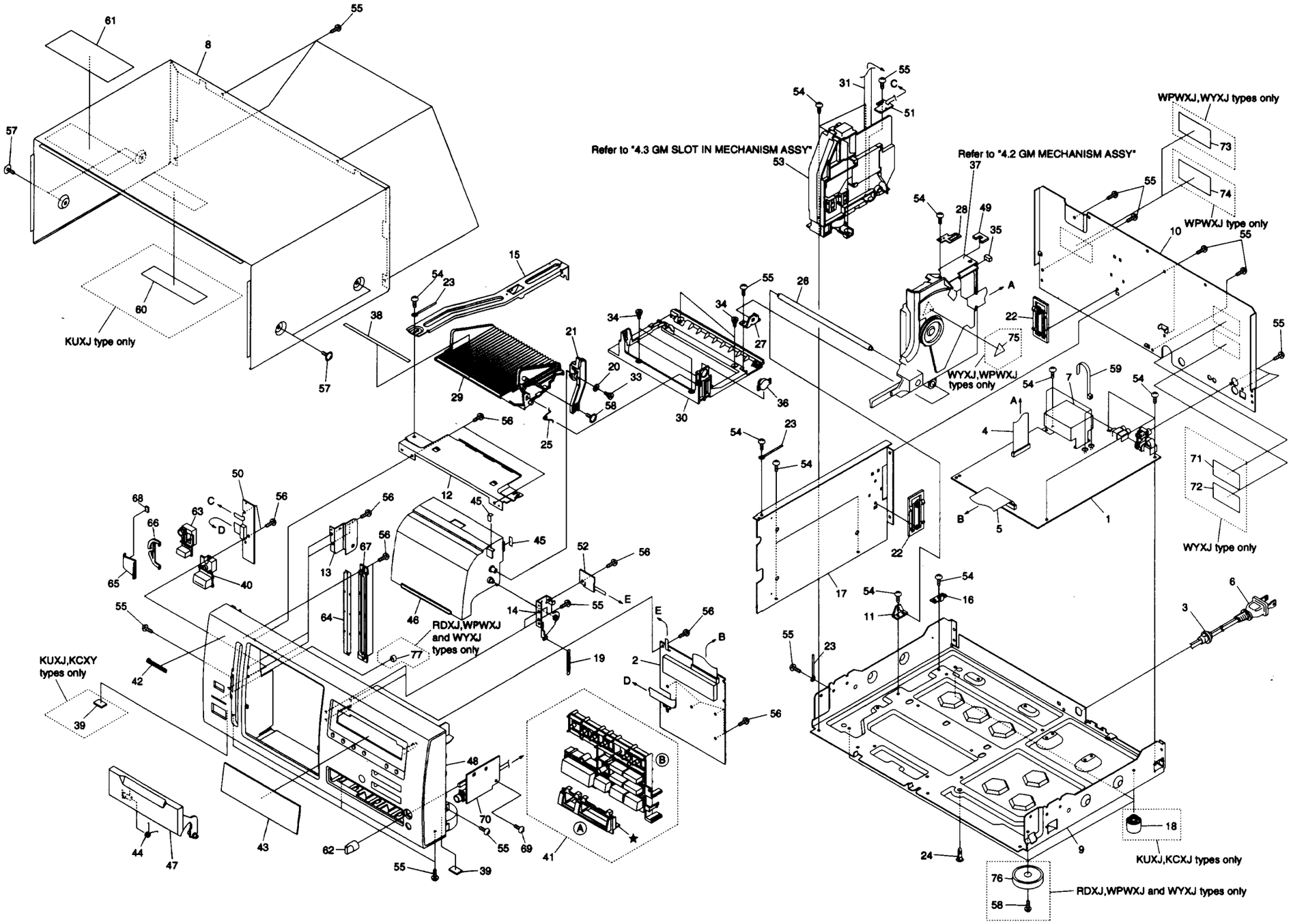
PD-F705/KUXJ, KCXJ, WPWXJ, WYXJ and RDXJ have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.					Remarks
			KUXJ TYPE	KCXJ TYPE	WPWXJ TYPE	WYXJ TYPE	RDXJ TYPE	
⚠	1	Mother PCB ASSY	PWM2000	PWM2000	PWM2003	PWM2001	PWM2004	
	2	Function PCB ASSY	PWZ3153	PWZ3153	Not used	Not used	Not used	
NSP	2	Function PCB ASSY	Not used	Not used	PWZ3154	PWZ3154	PWZ3154	
⚠	3	Cord Stopper	CM – 22C	CM – 22C	CM – 22B	CM – 22B	CM – 22B	
⚠	6	AC Power Cord	PDG1015	PDG1015	ADG1123	PDG1003	PDG1056	
⚠	7	Power Transformer (AC120V)	PTT1237	PTT1237	Not used	Not used	Not used	
⚠	7	Power Transformer (AC220 – 240V)	Not used	Not used	PTT1236	PTT1236	Not used	
⚠	7	Power Transformer (AC110 – 127V/220 – 240V)	Not used	Not used	Not used	Not used	PTT1238	
	10	Rear Base	PNA2256	PNA2256	PNA2293	PNA2292	PNA2294	
	18	Foot ASSY	AEC1531	AEC1531	Not used	Not used	Not used	
	39	Rubber Sheet	AEB1111	AEB1111	Not used	Not used	Not used	
	43	Display Window	PAM1702	PAM1702	PAM1702	PAM1714	PAM1702	
	48	Panel	PNW2637	PNW2637	PNW2657	PNW2657	PNW2657	
NSP	50	Power SW PCB ASSY	PWZ3159	PWZ3159	PWZ3160	PWZ3160	PWZ3160	
	60	65 Label	ORW1069	Not used	Not used	Not used	Not used	
	71	Caution Label	Not used	Not used	Not used	VRW1094	Not used	
	72	Caution Label HE	Not used	Not used	Not used	PRW1233	Not used	
NSP	73	Caution Label (F)	Not used	Not used	VRW – 328	VRW – 328	Not used	
	74	Caution Label	Not used	Not used	PRW1018	Not used	Not used	
	75	Caution Label (G)	Not used	Not used	VRW – 329	VRW – 329	Not used	
	76	Insulator	Not used	Not used	PNW1912	PNW1912	PNW1912	
	77	LED Lens	Not used	Not used	PNW2019	PNW2019	PNW2019	

■ PARTS LIST FOR PD-F705/KUXJ

Mark	No.	Description	Parts No.
⚠	1	Mother PCB ASSY	PWM2000
	2	Function PCB ASSY	PWZ3153
⚠	3	Cord Stopper	CM – 22C
	4	22P F.F.C/30V	PDD1170
	5	38P F.F.C/30V	PDD1169
⚠	6	AC Power Cord	PDG1015
⚠	7	Power Transformer	PTT1237
	8	Bonnet	PYY1187
NSP	9	Under Base	PNA2249
	10	Rear Base	PNA2256
	11	Shaft Holder S	ANB7024
	12	Panel Angle	PNB1545
	13	Hood Angle L	PNB1546
	14	Hood Angle R	PNB1547
	15	Home Lock Angle 1	PNB1548
	16	Home Lock Angle 2	PNB1549
	17	Barrier	PNB1550
	18	Foot ASSY	AEC1531
	19	Link Spring	PBH1215
	20	Link Spacer	PEB1292
	21	Link	PNW2614
	22	FFC Holder	PNW2615
	23	Cord Clamper	RNH – 184
NSP	24	Locking Card Spacer	VEC1596
	25	Rack Spring	ABH7057
	26	Guide Shaft S	ALA7008
	27	Shaft Holder	ANB7021
NSP	28	Assist Angle 2	ANB7065
	29	Disc Rack	ANW7069
	30	Rack Base S	ANW7070

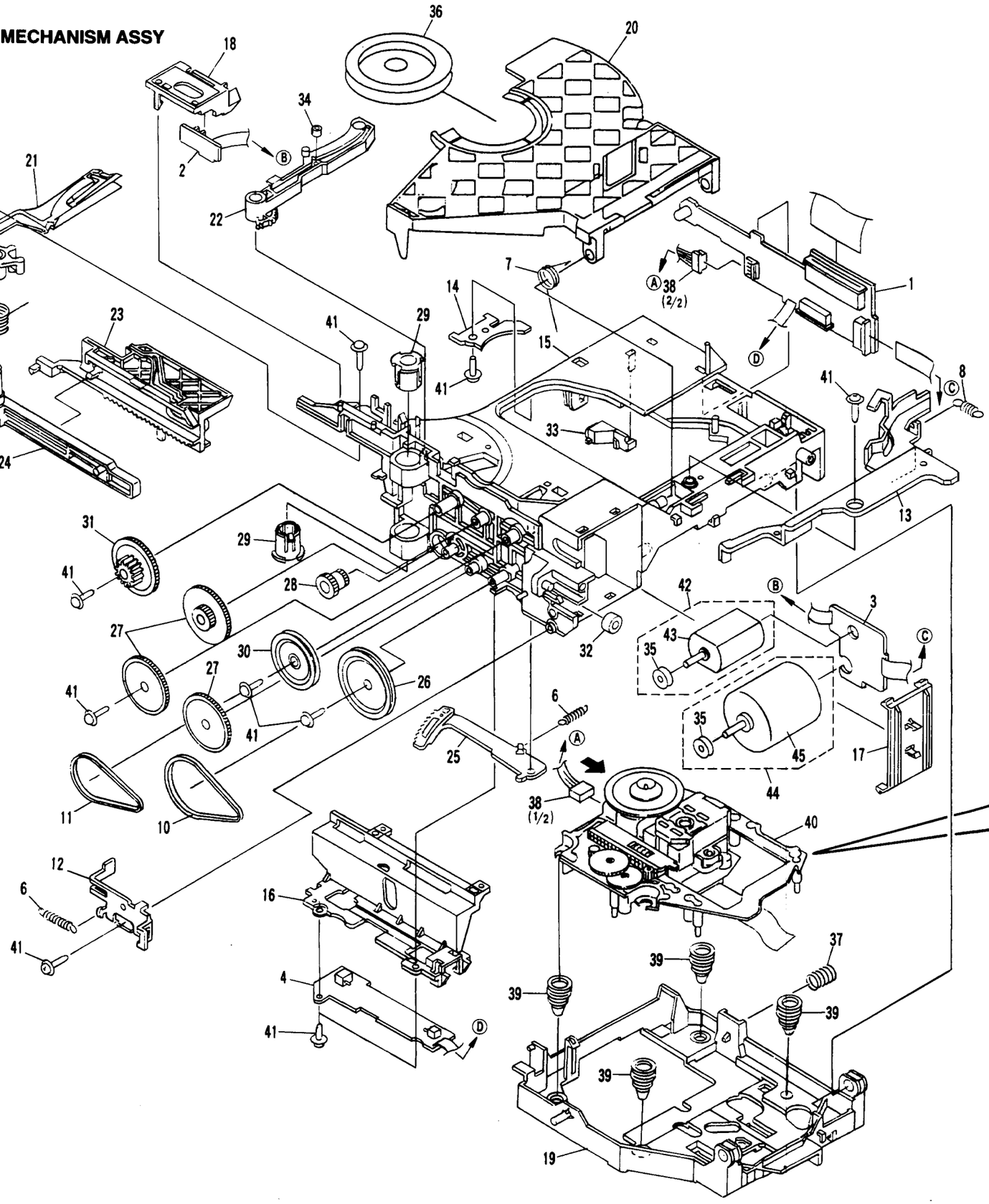
Mark	No.	Description	Parts No.
NSP	31	Jumper Wire (6P)	D20PYY0650E
	32	.....	
	33	Screw P	PBA1105
	34	Screw C	PBA1106
NSP	35	C.H Spacer	PEB1295
	36	Damper ASSY 80	PXA1584
NSP	37	GM Mechanism ASSY	AXA7026
	38	Disc Rack Panel	AAK7251
	39	Rubber Sheet	AEB1111
	40	Power Button	PAC1815
	41	Operate Button	PAC1816
	42	Name Plate	PAM1608
	43	Display Window	PAM1702
	44	Door Spring	PBH1216
NSP	45	Cushion (ART.SVEDE)	PED1016
	46	Hood	PNW2613
	47	Door	PNW2616
	48	Panel U7	PNW2637
	49	Assist Spacer	PNM1295
NSP	50	Power SW PCB ASSY	PWZ3159
NSP	51	Home SW PCB ASSY	PWZ3149
NSP	52	Hood SW PCB ASSY	PWZ3151
NSP	53	GM Slot In Mechanism ASSY	AXA7027
	54	Screw	BBZ30P060FMC
	55	Screw	BBZ30P080FZK
	56	Screw	PPZ30P080FMC
	57	Screw	FBT40P080FZK
	58	Screw	IBZ30P080FMC
	59	Binder	ZCA - SKB90BK
	60	65 Label	ORW1069
	61	Caution Lavel Plus 1E	PRW1425
	62	Knob	PAC1707
	63	Ejection Button	PAC1820
	64	Blind Felt	PNM1286
	65	Lens 1	PNW2624
	66	Lens 2	PNW2625
	67	Felt Holder	PNW2631
NSP	68	Lens Spacer	PEB1293
	69	Screw	IPZ30P060FMC
NSP	70	Headphone PCB ASSY	PWX1457
	71	.....	
	72	.....	
	73	.....	
	74	.....	
	75	.....	
	76	.....	
	77	.....	
	78	.....	


KUXJ type only
Refer to "4.3 GM SLOT IN MECHANISM ASSY"
Refer to "4.2 GM MECHANISM ASSY"
WPWXJ,WYXJ types only
WPWXJ type only
WYXJ,WPWXJ types only
WYXJ type only
RDXJ,WPWXJ and WYXJ types only
KUXJ,KCXY types only
KUXJ,KCXJ types only
RDXJ,WPWXJ and WYXJ types only

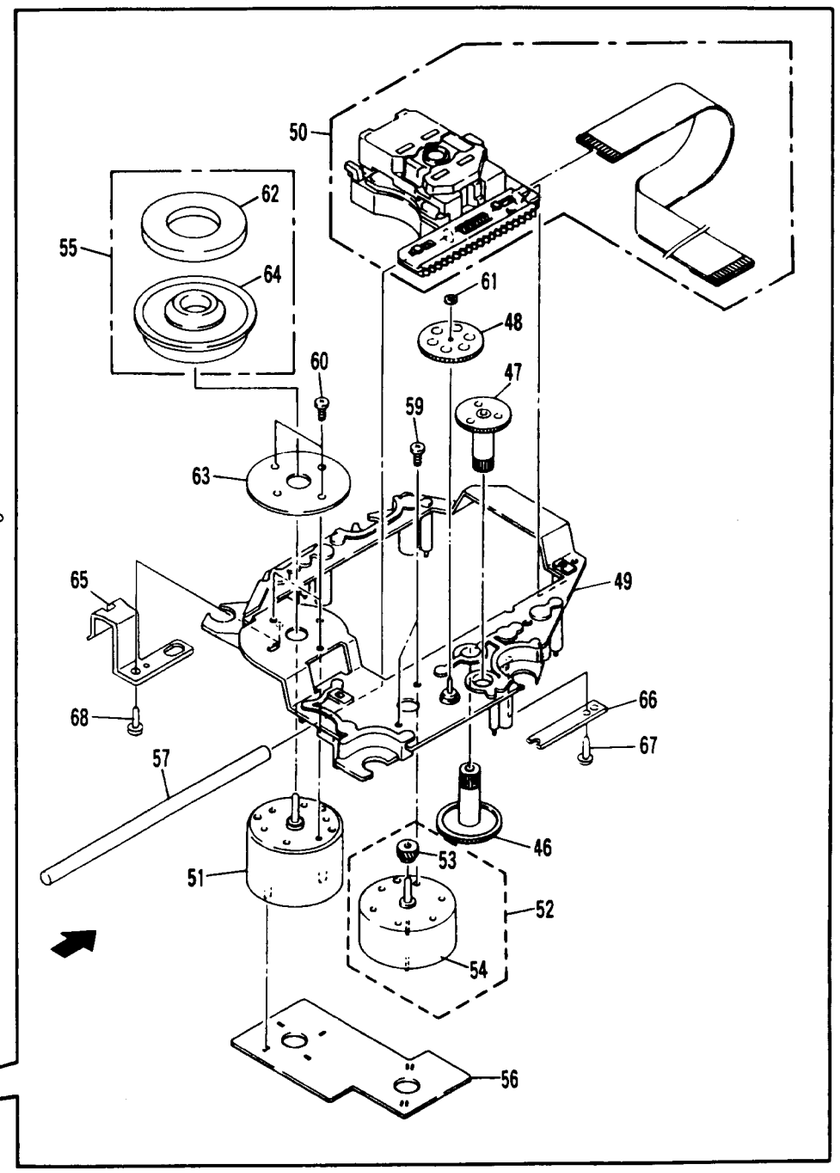
NOTE : Screws adjacent to ▼ mark on product are used for disassembly.

NOTE : Parts marked ★ are used separately from the OPERATE BUTTON (PAC1816).

4.2 GM MECHANISM ASSY



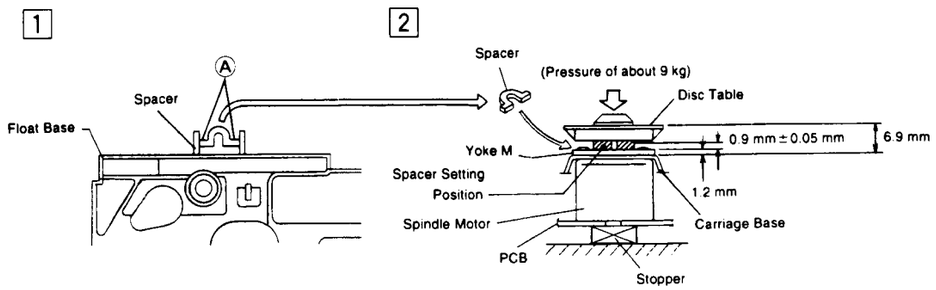
Servo Mechanism Assy GM



● How to install the disc table

1 Use nipper or other tool to cut the two sections marked Ⓐ figure 1.
Then remove the spacer.

2 While supporting the spindle motor shaft with the stopper, put spacer on top of the yoke M, and stick the disc table on top (takes about 9kg pressure). Take off the spacer.



Parts List

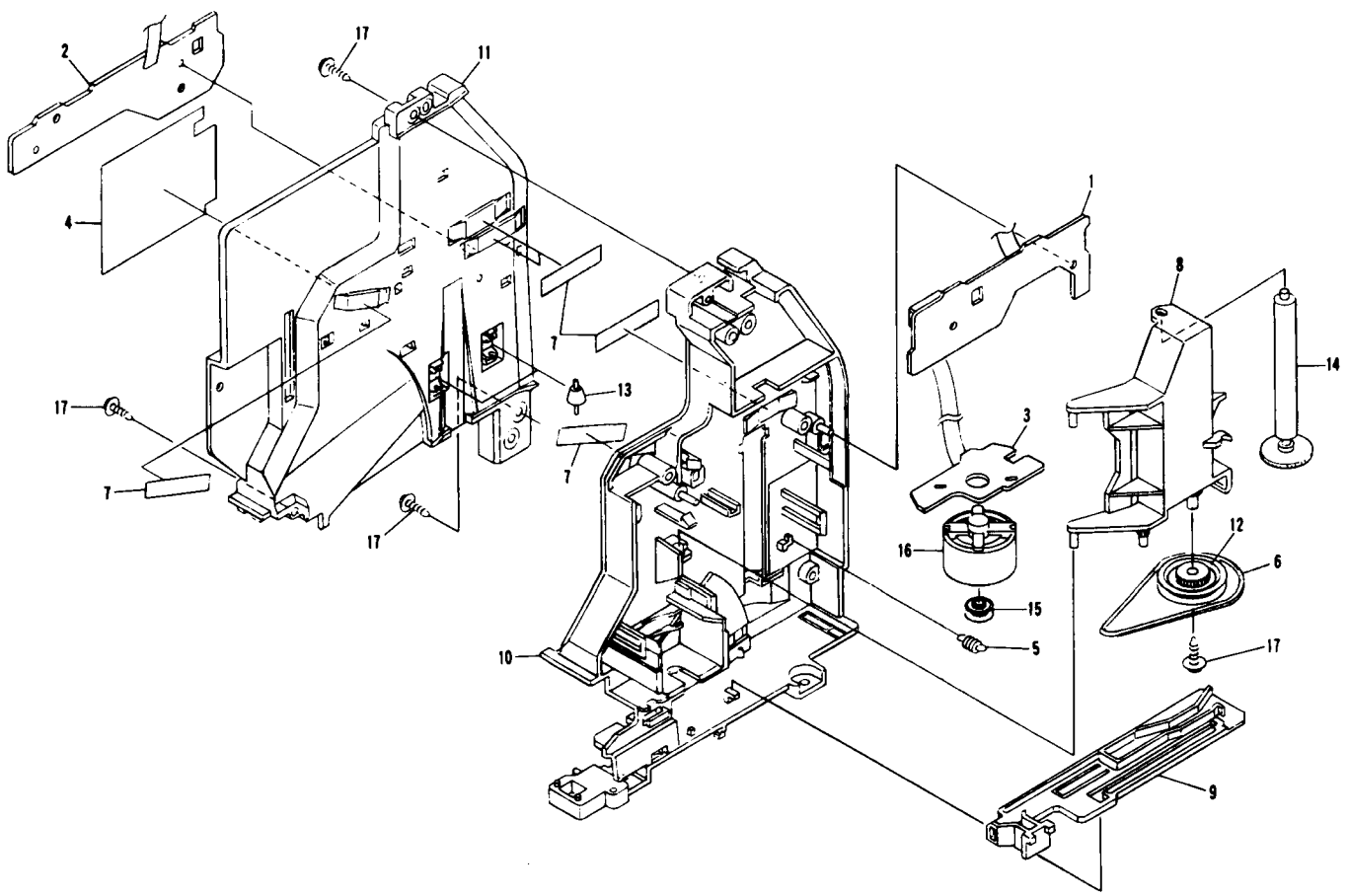
Mark	No.	Description	Parts No.
NSP	1	Mecha PCB Assy	AWZ7835
NSP	2	Sensor PCB Assy	AWZ7836
NSP	3	Motor PCB Assy	AWZ7837
NSP	4	SW PCB Assy	AWZ7838
	5	Arm A Spring 2	ABH7124
	6	Gear Plate Spring	ABH7051
	7	Clamp Spring	ABH7107
	8	Lock Lever Spring	ABH7120
	9	.....	
	10	Loading Belt	AEB7029
	11	Belt	AEB7030
NSP	12	Lock Angle	ANB7027
NSP	13	Lock Lever P	ANB7042
NSP	14	Servo Stopper S	ANB7047
	15	Loading Base	ANW7051
	16	Cam Cover	ANW7052
	17	Motor Holder	ANW7053
	18	Sensor Holder	ANW7054
	19	Float Base	ANW7055
	20	Clamper Holder	ANW7084
	21	Arm (A)	ANW7057
	22	Arm (B)	ANW7058
	23	Drive Plate	ANW7059
	24	Arm Plate	ANW7060
	25	Gear Plate	ANW7082
	26	Gear Pulley (B)	ANW7062
	27	Gear A	ANW7063
	28	Drive Gear	ANW7064
	29	Bearing	ANW7065
	30	Gear Pulley (A)	ANW7066
	31	Select Gear	ANW7067
	32	Roller	ANW7068
	33	LED Lens	ANW7072
	34	Roller B	ANW7075
	35	Motor Pulley	PNW1634
	36	Clamper	ANW7085
	37	Float Spring	ABH7049
	38	Connector Assy (4P)	ADE7006
	39	Float Rubber	AEB7059
NSP	40	Servo Mechanism Assy GM	AXA7028
	41	Screw	IPZ20P080FMC
	42	Motor Assy (SELECT)	AEA7005
NSP	43	Motor	PXM1002
	44	Motor Assy	AEA7006
	45	Loading Motor	VXM1034
	46	Gear 1	PNW2052
	47	Gear 2	PNW2053
	48	Gear 3	PNW2054
	49	Carriage Base	PNW2445
	50	Pickup Assy	AEA7004

Mark	No.	Description	Parts No.
	51	D.C. Motor Assy (SPDL)	PEA1235
	52	Carriage DC Motor Assy	PEA1246
	53	Pinion Gear	PNW2055
NSP	54	Carriage DC Motor/0.3W	PXM1027
	55	Disc Table Assy	PEA1314
NSP	56	Mechanism Board Assy	PWX1192
	57	Guide Bar	PLA1094
	58	.....	
	59	Screw	JFZ17P025FZK
	60	Screw	JFZ20P040FMC
	61	Washer	WT12D032D025
	62	Clamp Magnet	PMF1014
	63	Yoke M	PNB1312
NSP	64	Disc Table	PNW2410
NSP	65	Float Angle	ANB7020
	66	Gear Stopper	PNB1303
	67	Screw	BPZ20P060FMC
	68	Screw	BPZ26P100FMC
		Froil (for Service)	GYA1001
		Ha Narl (for Service)	GEM1016

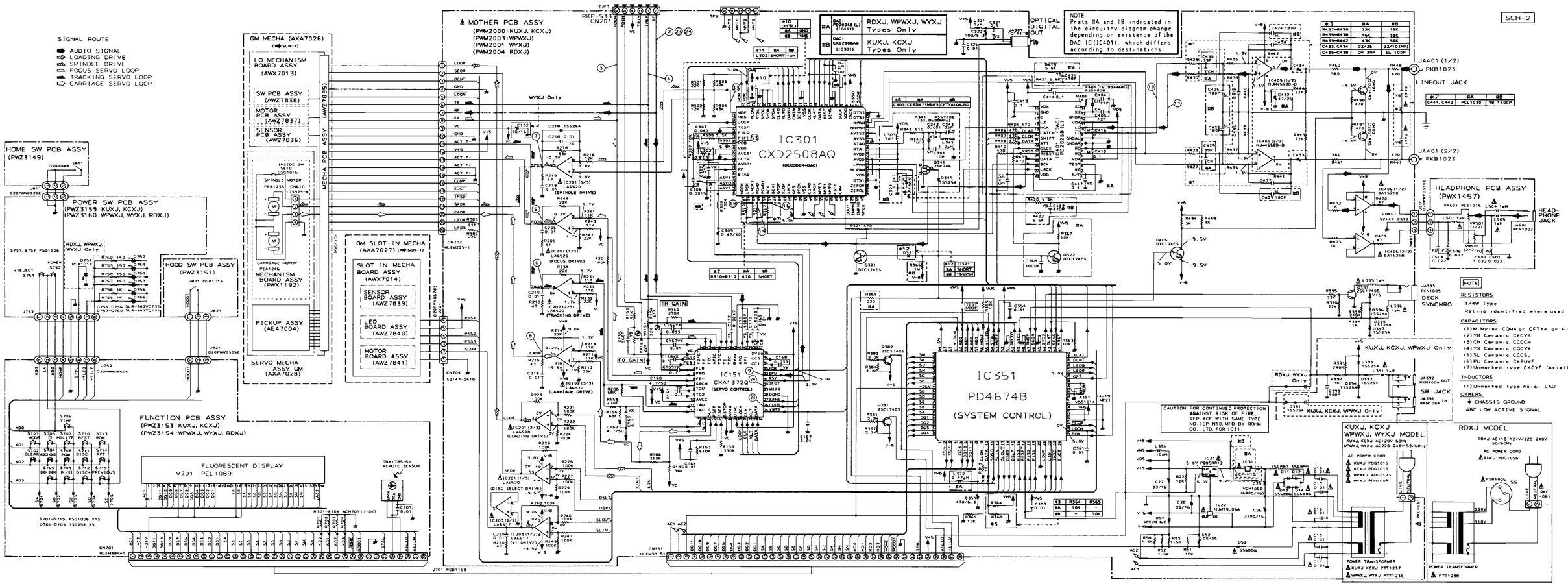
4.3 GM SLOT IN MECHANISM ASSY

Parts List

Mark	No.	Description	Parts No.
NSP	1	Sensor Board Assy	AWZ7839
NSP	2	LED Board Assy	AWZ7840
NSP	3	Motor Board Assy	AWZ7841
	4	Blind	AAK7219
	5	Roller Spring	ABH7063
	6	Belt	AEB7033
	7	Ecsaine	AED7004
	8	Gear Holder	ANW7047
	9	Slide Plate	ANW7048
	10	Case (M)	ANW7049
	11	Case (S)	ANW7077
	12	Gear Pulley A	ANW7066
	13	Guide Roller	ANW7076
	14	Roller Assy	AXA7029
	15	Motor Pulley	PNW1634
	16	DC Motor /0.75W	PXM1010
	17	Screw	IPZ20P080FMC



5.2 MOTHER PCB, FUNCTION PCB, POWER SW PCB, HOME SW PCB, HOOD SW PCB AND HEADPHONE PCB ASSEMBLIES



MOTHER PCB ASSY, FUNCTION PCB ASSY, POWER SW PCB ASSY, HOME SW PCB ASSY, HOOD SW PCB ASSY, HEADPHONE PCB ASSY
SCH-2

5. SCHEMATIC AND PCB CONNTCTION DIAGRAMS

5.1 GM MECHANISM ASSY AND GM SLOT IN MECHANISM ASSY

NOTE FOR SCHEMATIC DIAGRAMS (Type 4A)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/voltage(V) unless othrewise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭ or ← V:
   DC voltage (V) in PLAY mode unless otherwise noted.
   ⇨ mA or ← mA:
   DC current in PLAY mode unless otherwise noted.
   Value in ( ) is DC current in STOP mode.
7. **OTHERS:**
   - ⊘ or ⊘ : Adjusting point.
   - ◄▮ : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH-□ ON THE SCHEMATIC DIAGRAM:**
   - SCH-□ indicates the drawing number of the schematic dia gram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

FUNCTION PCB ASSY

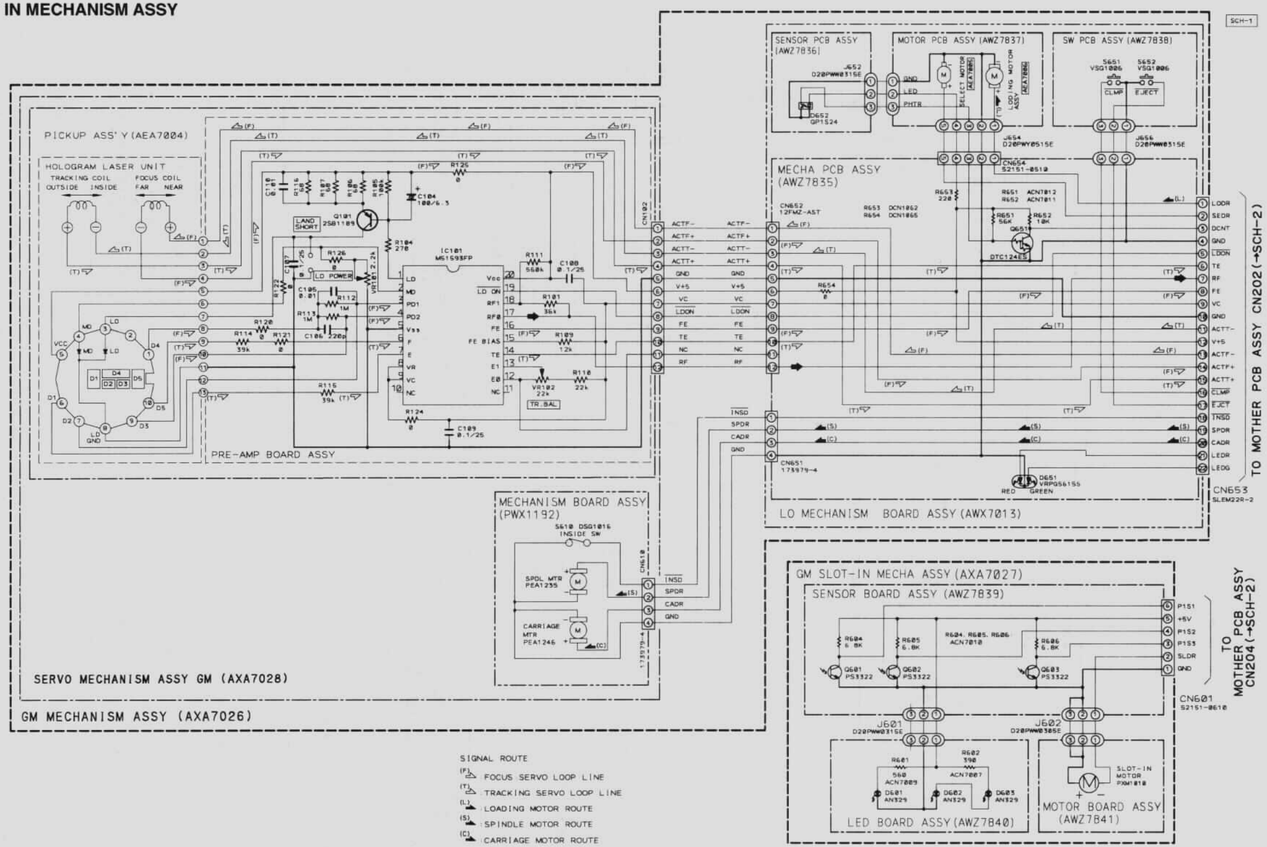
S701 : MODE	S709 : ▶/II
S702 : CLEAR	S710 : BEST
S703 : ■	S711 : DISC (–)
S704 : I◄◄ ◄◄	S712 : DISC (+)
S705 : ►► ►►I	S713 : RANDOM
S706 : TIME	S714 : REPEAT
S707 : HILITE	S715 : PREVIOUS
S708 : PGM	

POWER SW PCB ASSY
S751 : EJECT
S752 : POWER STANDBY/ON

NOTE FOR PCB DIAGRAMS:

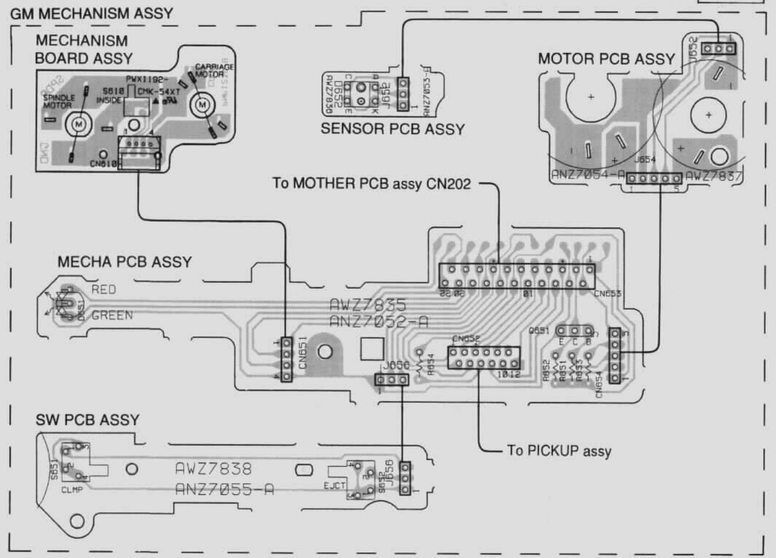
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator



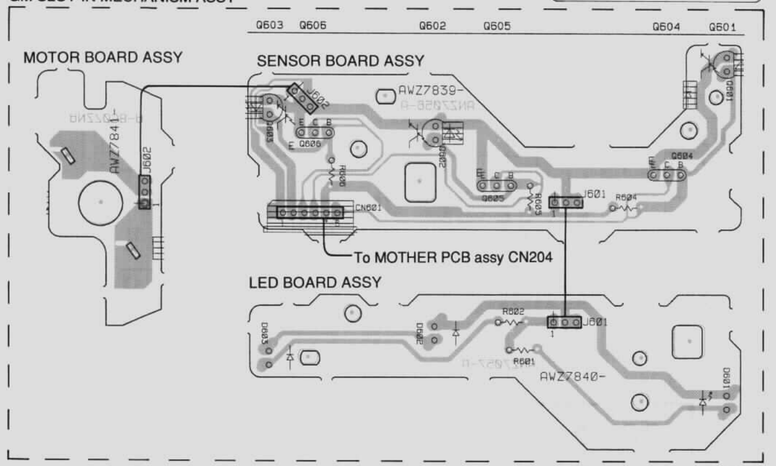
GM MECHANISM ASSY, GM SLOT IN MECHANISM ASSY SCH-1

PCB-1



● This diagram is viewed from the mounted parts side.

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.



- This diagram is viewed from the mounted parts side.
- The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

PCB-2

MOTHER PCB ASSY

VOLTAGE SELECTOR

S5

PRIMARY

LIVE NEUTRAL

AC IN

TO MECHA PCB ASSY CN653

VR151 VR152

Q391 Q407 Q408 Q405 Q403 IC406 Q404 Q454 Q452 Q453 Q451 IC405 IC31 IC21 IC32 IC401 IC371 IC202 Q371 IC301 IC151 Q341 Q322 Q372 IC351 IC201 Q321 IC22 Q381 Q382 IC203

PNP1400-B

TO SENSOR BOARD ASSY CN601

HOOD SW PCB ASSY

HEADPHONE PCB ASSY

PWX1457-
1458-
1459-

PNP1406-A

FUNCTION PCB ASSY

MODE S701
HI-LITE S707
CLEAR S702
TIME S706
REPEAT (RENTAL) S714
RANDOM S713
BEST S710
PREVIOUS S715
PROGRAM S709
DISC- S711
DISC+ S712
PLAY/PAUSE S709
STOP S703
REV S704
FWD S705

PNP1401-B

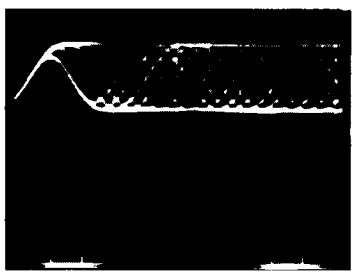
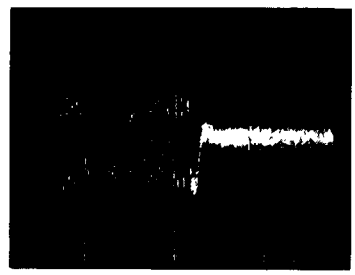
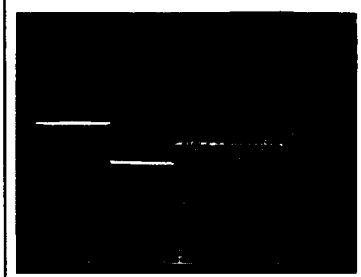
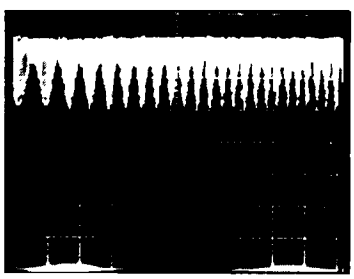
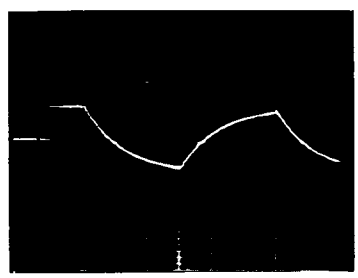
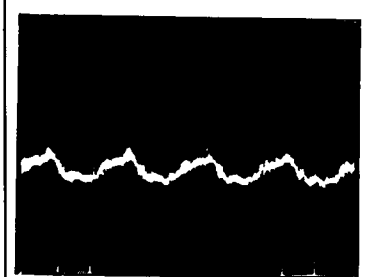
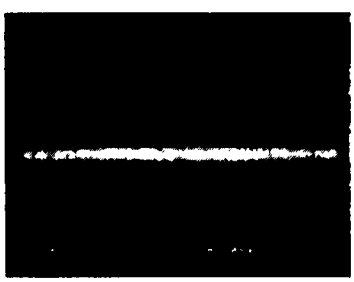
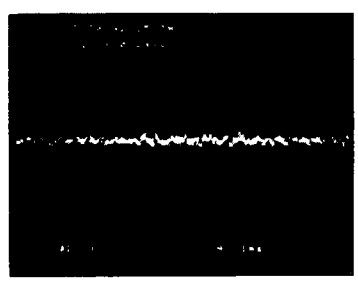
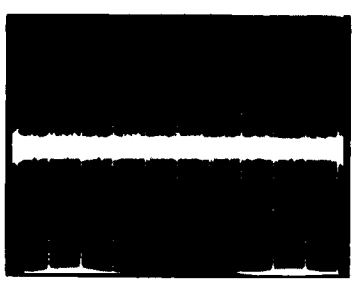
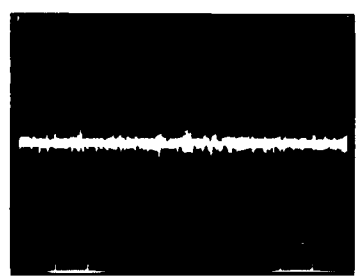
POWER SW PCB ASSY

HOME SW PCB ASSY

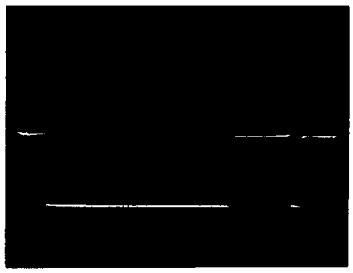
Waveforms

Note : The encircled numbers denote measuring points in the schematic diagram.

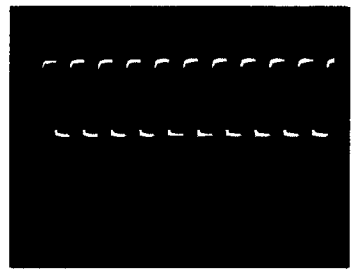
*1 50T-JUMP : After switching to the pause mode, press the manual search key.
*2 FOCUS-IN : Press the key without loading a disc.

② TP1-Pin 1 : PLAY MODE (RF) 500mV/div 500nsec/div  – VC	④ TP1-Pin 2 : 50T - JUMP (*1) MODE (TRER) 1V/div 1msec/div  – GND	⑥ IC202-Pin 4 : 50T - JUMP (*1) MODE (TRDR) 500mV/div 1msec/div  – GND
② TP1-Pin 1 : TRACK SEARCH MODE (RF) 500mV/div 200μsec/div  – VC	⑤ IC202-Pin 3 : FOCUS-IN(*2) MODE (FODR) 1V/div 200msec/div  – GND	⑦ IC201-Pin 9 : PLAY MODE (SPDR) 1V/div 50msec/div  – GND
③ TP1-Pin 6 : PLAY MODE (FOER) 100mV/div 10msec/div  – VC	⑤ IC202-Pin 3 : PLAY MODE (FODR) 1V/div 1msec/div  – GND	⑦ IC201-Pin 9 : TRACK SEARCH MODE (SPDR) 2V/div 50msec/div – GND
④ TP1-Pin 2 : PLAY MODE (TRER) 1V/div 1msec/div  – VC	⑥ IC202-Pin 4 : PLAY MODE (TRDR) 500mV/div 1msec/div  – GND	⑧ IC202-Pin 9 : PLAY MODE (CADR) 0.2V/div 2sec/div – GND

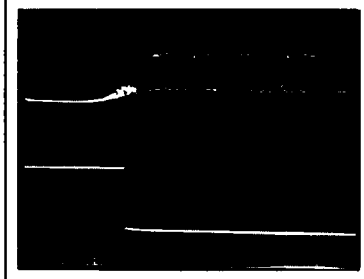
⑧ IC202-Pin 9 : TRACK SEARCH MODE (CADR)
2V/div 200msec/div



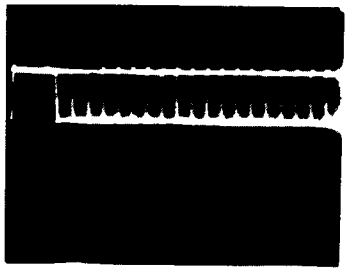
⑯ IC301-Pin 46 : PLAY MODE (1kHz) (BCK)
2V/div 500nsec/div



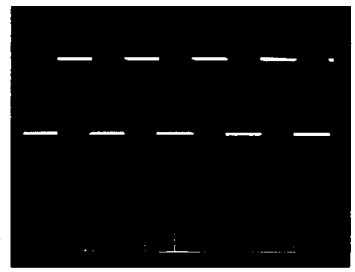
㉔ : PLAY MODE
Upper: TP1-Pin1 (RF) 1V/div
Lower: IC151-Pin30 (DFCT)
5V/div 200µsec/div



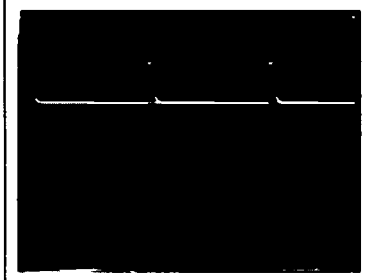
⑨ IC151-Pin 32 : PLAY MODE (EFM)
2V/div 500nsec/div



⑱ IC301-Pin 42 : PLAY MODE (1kHz) (LRCK)
2V/div 10µsec/div

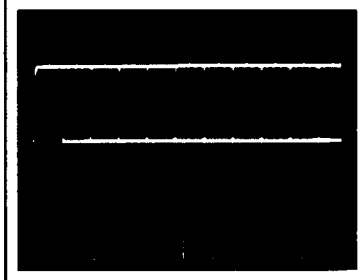


㉝ IC301-Pin 25 : PLAY MODE (MDP)
2V/div 2µsec/div

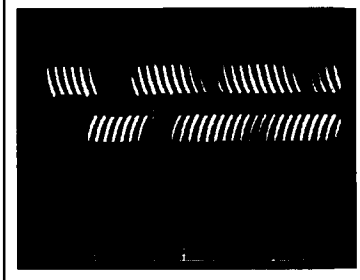


⑩ IC401-Pin 9 : PLAY MODE (1kHz) (LŌ) (D/A DATA OUT)
1V/div 200µsec/div

⑲ IC301-Pin 44 : PLAY MODE (1kHz) (PCMD)
2V/div 500nsec/div



㊸ IC301-Pin 31 : PLAY MODE (PCO)
2V/div 10µsec/div



⑪ IC401-Pin 10 : PLAY MODE (1kHz) (LO) (D/A DATA OUT)
1V/div 200µsec/div

㉓ : TRACK SEARCH MODE
Upper: TP1-Pin1 (RF) 1V/div
Lower: IC151-Pin26 (C.OUT)
2V/div 50µsec/div

6. PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω	→ *56 × 10¹* → *561*	.....	*RD1/4PU[5][6][1]J*
47kΩ	→ *47 × 10³* → *473*	.....	*RD1/4PU[4][7][3]J*
0.5Ω	→ *0R5*	.....	*RN2H[0][R][5]K*
1Ω	→ *1R0*	.....	*RS1P[1][R][0]K*

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ	→ *562 × 10¹* → *5621*	.....	*RN1/4PC[5][6][2][1]F*

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol & Description	Part No.					Remarks
		KUXJ TYPE	KCXJ TYPE	WPWXJ TYPE	WYXJ TYPE	RDXJ TYPE	
⚠	MOTHER PCB ASSY	PWM2000	PWM2000	PWM2003	PWM2001	PWM2004	
NSP	SUB PCB ASSY	PWX1443	PWX1443	PWX1444	PWX1444	PWX1444	
NSP	├HOME SW PCB ASSY	PWZ3149	PWZ3149	PWZ3149	PWZ3149	PWZ3149	
NSP	├HOOD SW PCB ASSY	PWZ3151	PWZ3151	PWZ3151	PWZ3151	PWZ3151	
	├FUNCTION PCB ASSY	PWZ3153	PWZ3153	Not used	Not used	Not used	┐
NSP	├FUNCTION PCB ASSY	Not used	Not used	PWZ3154	PWZ3154	PWZ3154	├*1
NSP	└POWER SW PCB ASSY	PWZ3159	PWZ3159	PWZ3160	PWZ3160	PWZ3160	
NSP	HEADPHONE PCB ASSY	PWX1457	PWX1457	PWX1457	PWX1457	PWX1457	
NSP	GM MECHANISM ASSY	AXA7026	AXA7026	AXA7026	AXA7026	AXA7026	
NSP	├LO MECHANISM BOARD ASSY	AWX7013	AWX7013	AWX7013	AWX7013	AWX7013	
NSP	├MECHA PCB ASSY	AWZ7835	AWZ7835	AWZ7835	AWZ7835	AWZ7835	
NSP	├SENSOR PCB ASSY	AWZ7836	AWZ7836	AWZ7836	AWZ7836	AWZ7836	
NSP	├MOTOR PCB ASSY	AWZ7837	AWZ7837	AWZ7837	AWZ7837	AWZ7837	
NSP	└SW PCB ASSY	AWZ7838	AWZ7838	AWZ7838	AWZ7838	AWZ7838	
NSP	└SERVO MECHANISM ASSY	AXA7028	AXA7028	AXA7028	AXA7028	AXA7028	
NSP	└MECHANISM BOARD ASSY	PWX1192	PWX1192	PWX1192	PWX1192	PWX1192	
NSP	GM SLOT IN MECHANISM ASSY	AXA7027	AXA7027	AXA7027	AXA7027	AXA7027	
NSP	└SLOT IN MECHA BOARD ASSY	AWX7014	AWX7014	AWX7014	AWX7014	AWX7014	
NSP	├SENSOR BOARD ASSY	AWZ7839	AWZ7839	AWZ7839	AWZ7839	AWZ7839	
NSP	├LED BOARD ASSY	AWZ7840	AWZ7840	AWZ7840	AWZ7840	AWZ7840	
NSP	└MOTOR BOARD ASSY	AWZ7841	AWZ7841	AWZ7841	AWZ7841	AWZ7841	

Notes >

*1 : Although PWZ3154 and PWZ3153 are different in port number. They consist of the same component.

■ CONTRAST OF PCB ASSEMBLIES

MOTHER PCB ASSY

PWM2003, PWM2001, PWM2004 and PWM2000 have the same construction except for the following:

Mark	Symbol & Description	Part No.				Remarks
		PWM2000	PWM2003	PWM2001	PWM2004	
	C132	Not used	Not used	CEAS100M16	Not used	
	C302, C304	CGCYX473K25	Not used	Not used	Not used	
	C303	CFTYA104J50	CEAS471M6R3	CEAS471M6R3	CEAS471M6R3	
	C310	CKCYF103Z50	Not used	Not used	Not used	
	C341	CCCCH100D50	Not used	Not used	Not used	
	C342	CKCYB102K50	Not used	Not used	Not used	
	C343	CCCCH220J50	Not used	Not used	Not used	
	C368	Not used	CKCYB102K50	CKCYB102K50	CKCYB102K50	
	C393	CCCSL101J50	CCCSL101J50	Not used	Not used	
	C403	Not used	CCCCH120J50	CCCCH120J50	CCCCH120J50	
	C404	Not used	CCCCH220J50	CCCCH220J50	CCCCH220J50	
	C413 – C416	Not used	CFTYA104J50	CFTYA104J50	CFTYA104J50	
	C417	Not used	CGCYX104K25	CGCYX104K25	CGCYX104K25	
	C421, C422	CKCYB471K50	Not used	Not used	Not used	
	C423 – C426	CCCSL181J50	Not used	Not used	Not used	
	C429, C430	Not used	CCCCH390J50	CCCCH390J50	CCCCH390J50	
	C432	Not used	CEAS470M25	CEAS470M25	CEAS470M25	
	C433, C434	CEANP220M10	CEAS220M25	CEAS220M25	CEAS220M25	
	C435 – C438	CCCSL101J50	CCCCH390J50	CCCCH390J50	CCCCH390J50	
⚠	C441, C442 (1500pF)	CKCYB152K50	PCL1030	PCL1030	PCL1030	
	C461	Not used	CKCYF103Z50	CKCYF103Z50	CKCYF103Z50	
	D321, D341	1SS254	Not used	Not used	Not used	
	D391 – D394	1SS254	1SS254	Not used	Not used	
⚠	IC31	Not used	ICP – N10	ICP – N10	ICP – N10	
	IC401	Not used	PD2026B(L)	PD2026B(L)	PD2026B(L)	
	JA391, JA392	RKN1004	RKN1004	Not used	Not used	
	L302, L303	LAU010J	Not used	Not used	Not used	
	L341	LAU1R2J	Not used	Not used	Not used	
	L372	Not used	LAUR47J	LAUR47J	LAUR47J	
⚠	L391	LAU010J	LAU010J	Not used	Not used	
	Q322	Not used	DTC124ES	DTC124ES	DTC124ES	
	Q341	2SK246	Not used	Not used	Not used	
	R310 – R312, R405 – R410	Not used	RD1/4PU471J	RD1/4PU471J	RD1/4PU471J	
	R341	RD1/4PU511J	Not used	Not used	Not used	
	R342, R366	RD1/4PU105J	Not used	Not used	Not used	
	R351	Not used	RD1/4PU221J	RD1/4PU221J	RD1/4PU221J	
	R364, R367	Not used	RD1/4PU103J	RD1/4PU103J	RD1/4PU103J	
	R365	RD1/4PU103J	Not used	Not used	Not used	
	R391	RD1/4PU244J	RD1/4PU244J	Not used	Not used	
	R392	RD1/4PU102J	RD1/4PU102J	Not used	Not used	
	R401	Not used	RD1/4PU102J	RD1/4PU102J	RD1/4PU102J	
	R419 – R422	RD1/4PU562J	Not used	Not used	Not used	
	R427 – R430	RD1/4PU153J	RD1/4PU223J	RD1/4PU223J	RD1/4PU223J	
	R435 – R438	RD1/4PU333J	RD1/4PU163J	RD1/4PU163J	RD1/4PU163J	
	R439 – R442	RD1/4PU563J	RD1/4PU433J	RD1/4PU433J	RD1/4PU433J	
⚠	S5	Not used	Not used	Not used	PSB1006	
	X341 (4.19MHz)	ASS7000	Not used	Not used	Not used	
	X401 (16.9344MHz)	Not used	PSS1008	PSS1008	PSS1008	

POWER SW PCB ASSY

PWZ3160 and PWZ3159 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		PWZ3159	PWZ3160	
	D751	Not used	PCX1019	

■ PCB PARTS LIST FOR PD-F705/KUXJ

Mark	No.	Description	Parts No.

MOTHER PCB ASSY

SEMICONDUCTORS

⚠	IC406		BA15218
	IC151		CXA1372Q
	IC301		CXD2508AQ
⚠	IC203		LA6517
⚠	IC201, IC202		LA6520
	IC405		NJM4558D – D
⚠	IC22		NJM79L05A
	IC351		PD4674B
⚠	IC21		PQ05RR12
	Q381, Q382, Q391		2SC1740S
	Q403, Q404		2SD2144S
	Q341		2SK246
	Q321, Q405		DTC124ES
	D218, D321, D341, D391 – D397		1SS254
	D54		MTZJ18B
⚠	D11 – D14, D52		S5688G

COILS AND FILTERS

	L302, L303, L321, L391		LAU010J
⚠	L395, L396		LAU010J
	L351		LAU100J
	L341		LAU1R2J

CAPACITORS

	C341		CCCCH100D50
	C343		CCCCH220J50
	C393, C435 – C438		CCCSL101J50
	C423 – C426		CCCSL181J50
	C433, C434		CEANP220M10
	C52		CEAS101M35
	C322		CEAS101M6R3
	C28		CEAS220M16
	C26		CEAS222M16
	C27		CEAS330M16
	C351		CEAS471M6R3
	C160, C162		CEAS4R7M50
	C309		CEASR47M50
	C303		CFTYA104J50
	C157, C164, C169, C218		CGCYX103K25
	C158, C159, C161, C163, C321		CGCYX104K25
	C156, C168		CGCYX333K25
	C302, C304, C307		CGCYX473K25
	C171, C342		CKCYB102K50
	C306, C441, C442		CKCYB152K50
	C170		CKCYB332K50
	C421, C422		CKCYB471K50
	C172		CKCYB472K50
	C155		CKCYB561K50
⚠	C11, C13, C15, C16		CKCYF103Z50
	C17, C167, C205, C210, C215		CKCYF103Z50
	C219, C250, C310, C325, C353		CKCYF103Z50
	C354, C361		CKCYF103Z50
	C25 (6800μF/16V)		VCH1060

RESISTORS

	VR151, VR152	(22kΩ, 0.1W)	RCP1046
		Other Resistors	RD1/4PU□□□J

OTHERS

	CN401	3P JUMPER CONNECTOR	52147 – 0310
	CN204	6P JUMPER CONNECTOR	52147 – 0610
	X341	XTAL RES (OSC) (33.8688MHz)	ASS7000
	CN202	CONNECTOR	HLEM22S – 1
	CN351	CONNECTOR	HLEM38S – 1
	JA401	JACK	PKB1023
	JA393	JACK	PKN1005
⚠		TERMINAL	RKC – 061
	JA391, JA392	JACK	RKN1004
	CN201	CONNECTOR 6P	RKP – 533
	JA301	OPTICAL OUTPUT JACK	TOTX178
	X351	CERAMIC RESONATOR (4.19MHz)	VSS1014

HOME SW PCB ASSY

SWITCHES AND RELAYS

	S811		DSG1048

HOOD SW PCB ASSY

SWITCHES AND RELAYS

	S821		DSG1015

OTHERS

	J821	3P JUMPER WIRE	D20PWW0305E

FUNCTION PCB ASSY

SEMICONDUCTORS

	D701 – D705		1SS254

SWITCHES AND RELAYS

	S701 – S715		PSG1006

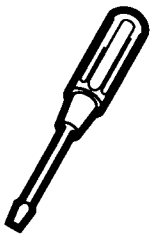
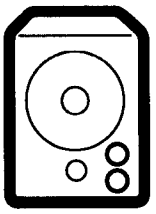
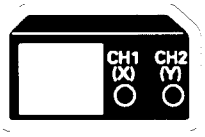
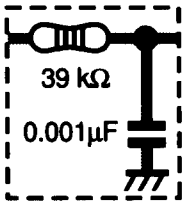
Mark	No.	Description	Parts No.
CAPACITORS			
	C701		CKCYF103Z50
RESISTORS			
		All Resistors	RD1/4PU□□□J
OTHERS			
	CN701	CONNECTOR	HLEM38R – 1
	V701	FL INDICATOR TUBE	PEL1089
		REMOTE SENSOR	SBX1785 – 51
POWER SW PCB ASSY			
SEMICONDUCTORS			
	D755, D756	LED(RED)	SLR – 342VCT31
	D757 – D760	LED(YELLOW)	SLR – 342YCT31
SWITCHES AND RELAYS			
	S751, S752		PSG1006
RESISTORS			
		All Resistors	RD1/4PU□□□J
HEADPHONE PCB ASSY			
COILS AND FILTERS			
⚠	L501, L504, L505		LAU010J
CAPACITORS			
	C501, C502, C504, C506		CKPUYF223Z25
RESISTORS			
	VR501	(500Ω – B)	PCS1015
OTHERS			
	JA501	JACK	RKN1002
MECHA PCB ASSY			
SEMICONDUCTORS			
	Q651		DTC124ES
	D651		VRPG5615S
RESISTORS			
	R652	(10kΩ)	ACN7011
	R651	(56kΩ)	ACN7012
	R653	(220Ω, 1/6W)	DCN1062
	R654	(0Ω)	DCN1065
OTHERS			
	CN652	CONNECTOR	12FMZ – AST
	CN651	MT CONNECTOR 4P	173979 – 4
	CN653	CONNECTOR	SLEM22R – 2
SENSOR PCB ASSY			
SEMICONDUCTORS			
	D652		GP1S24
OTHERS			
	J652	3P JUMPER WIRE	D20PWW0315E

Mark	No.	Description	Parts No.
MOTOR PCB ASSY			
OTHERS			
		LOADING MOTOR	VXM1034
SW PCB ASSY			
SWITCHES AND RELAYS			
	S651, S652		VSG1006
OTHERS			
	J656	3P JUMPER WIRE	D20PWW0315E
MECHANISM BOARD ASSY			
SWITCHES AND RELAYS			
	S610		DSG1016
OTHERS			
	CN610	MT CONNECTOR 4P	173979 – 4
SENSOR BOARD ASSY			
SEMICONDUCTORS			
	Q601 – Q603		PS3322
RESISTORS			
	R604 – R606	(6.8kΩ)	ACN7010
OTHERS			
	CN601	6PJUMPER CONNECTOR	52151 – 0610
LED BOARD ASSY			
SEMICONDUCTORS			
	D601 – D603		AN329
RESISTORS			
	R602	(390Ω)	ACN7007
	R601	(560Ω)	ACN7009
OTHERS			
	J601	3P JUMPER WIRE	D20PWW0315E
MOTOR BOARD ASSY			
OTHERS			
	J602	3P JUMPER WIRE	D20PWW0305E

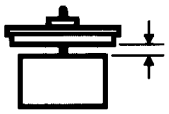
7. ADJUSTMENTS (調整方法)

7.1 PREPARATIONS (準備)

1.1 Jigs and Measuring Instruments (使用測定器/治工具類)

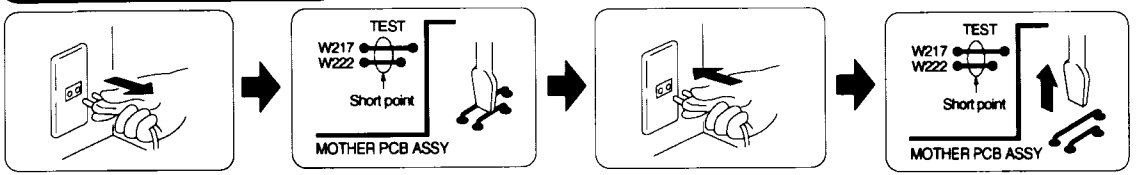
CD TEST DISC (YEDS-7)	⊖ Precise screwdriver	 ⊖ screwdriver (small)	⊕ screwdriver (medium)
⊕ screwdriver (large)	 Low-frequency oscillator	 Dual-trace oscilloscope (10 : 1 probe)	 Low pass filter (39 kΩ + 0.001μF)

1.2 Necessary Adjustment Points (調整に必要な項目)

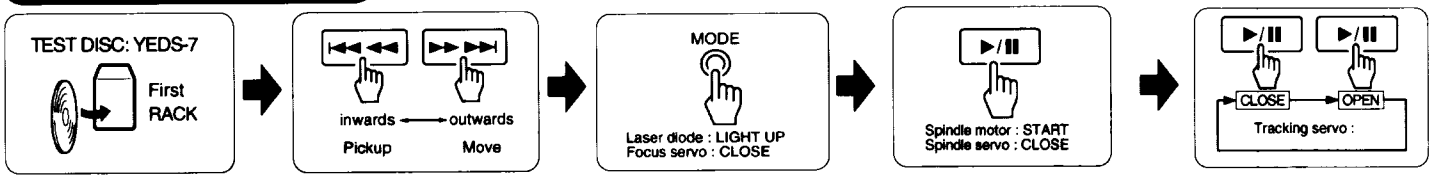
When (このような時)	Adjustment points
Exchange PICKUP (ピックアップを交換した時)	1.2.3.4.5.6. → Page 29~31
Exchange CD ASSY (CD ASSYを交換した時)	1.2.3.4.5.6. → Page 29~31
Exchange SERVO MECH ASSY (サーボメカ ASSYを交換した時)	1.2.3.4.5.6. → Page 29~31
Exchange SPINDLE MOTOR (スピンドルモーターを交換した時)	 ADJ → Page 10

1 How to Start/Cancel Test Mode （テストモ-ドの設定/解除）

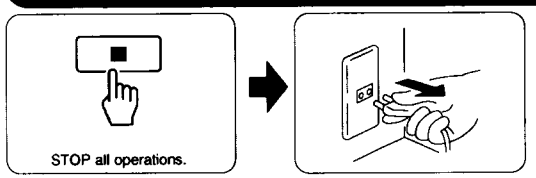
TEST MODE: ON



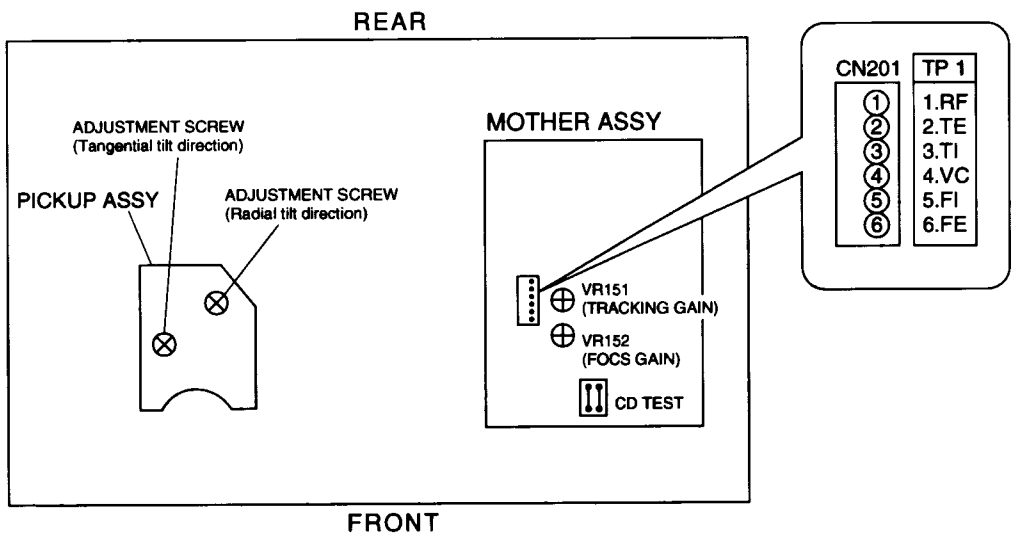
TEST MODE: PLAY



TEST MODE: STOP → CANCEL

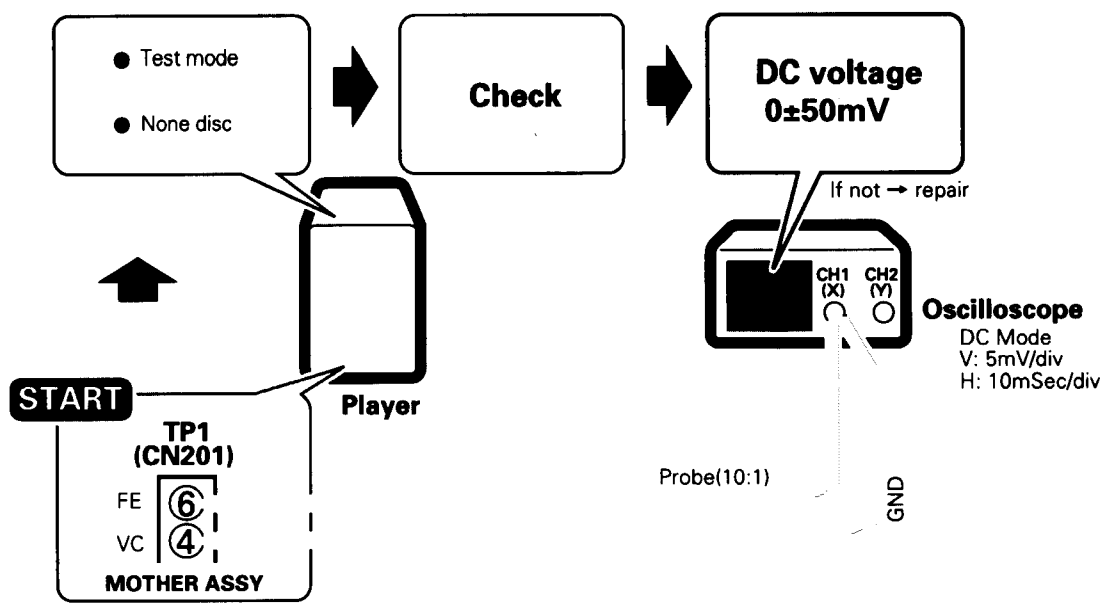


2 Adjustment Locations（テストポイントと調整用VRの位置）

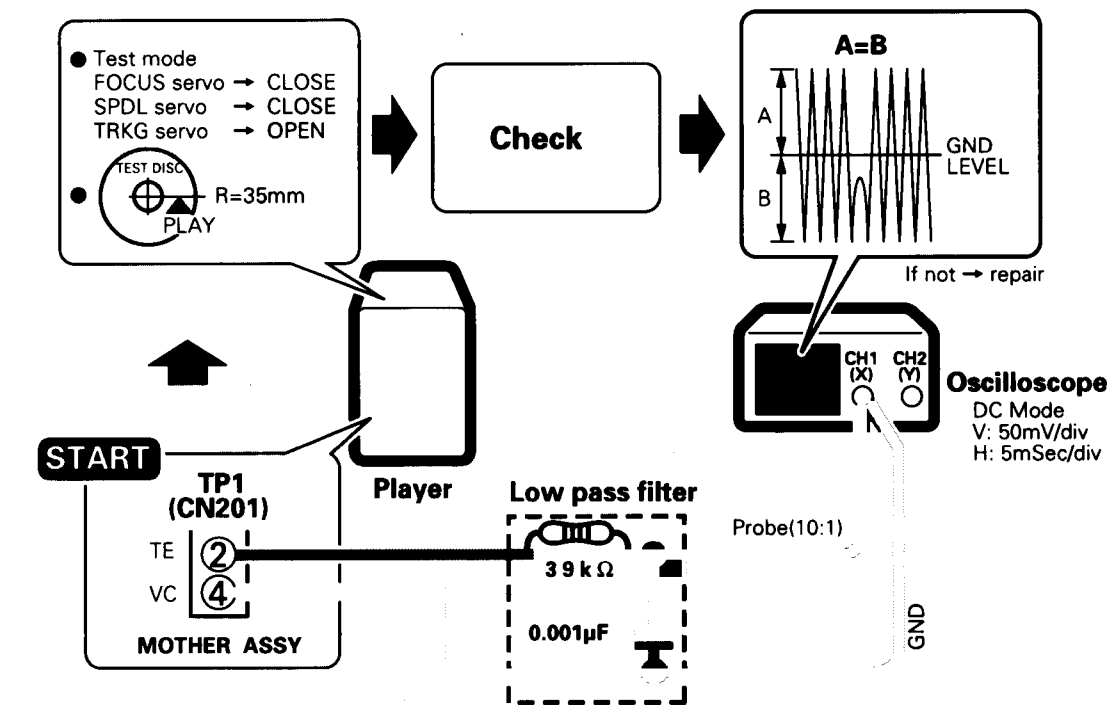


7.3 Check and Adjustment (確認、調整)

1. Focus Offset Check
(フォーカスオフセット確認)

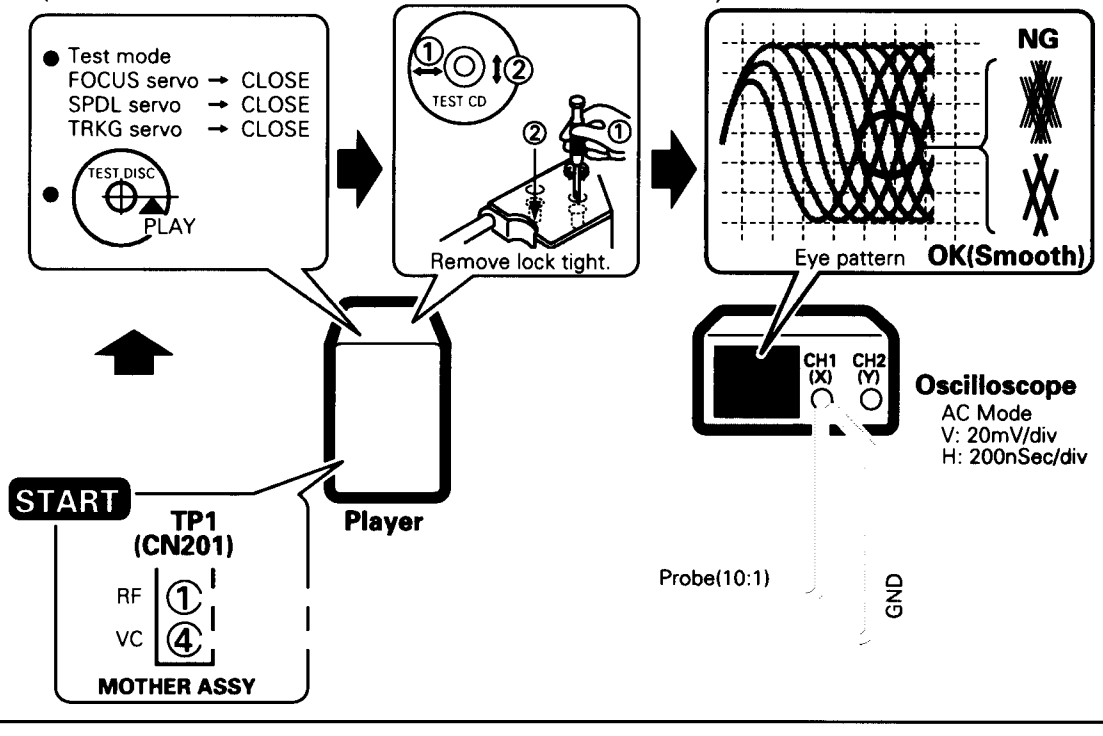


2. Tracking Error Balance Check
(トラッキングエラーバランス確認)



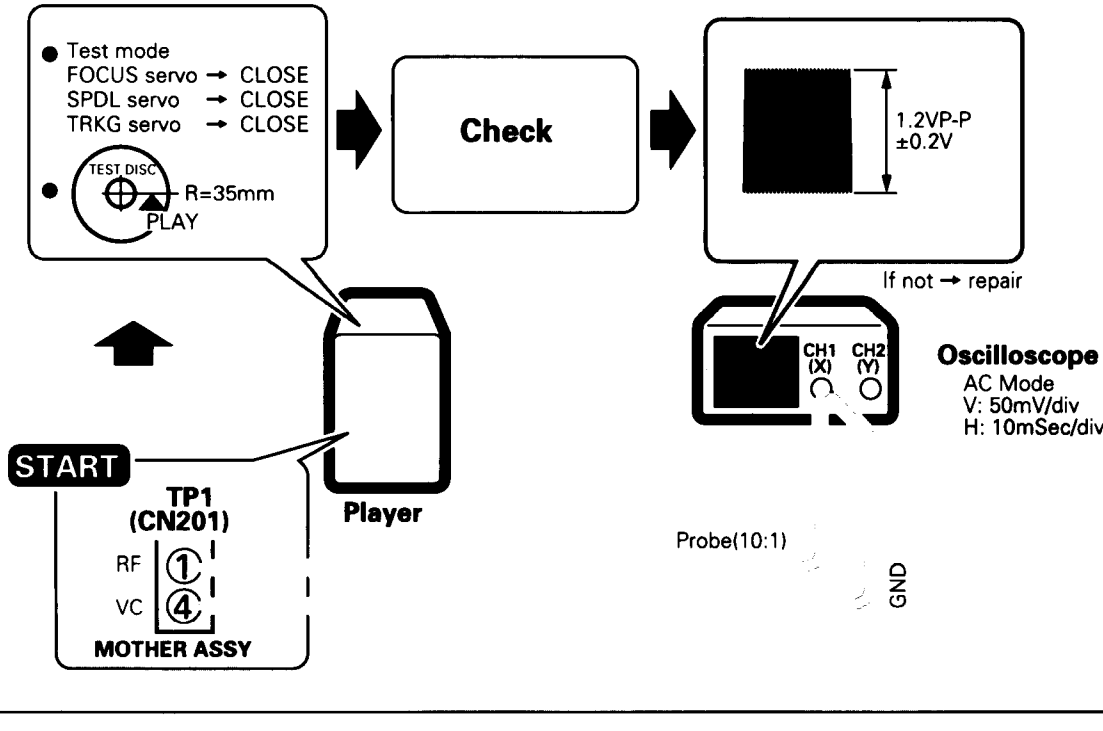
3. PICKUP ①RADIAL / ②TANGENTIAL DIRECTION TILT ADJUSTMENT

(ピックアップ①ラジアル方向②タンジェンシャル方向の傾き調整)

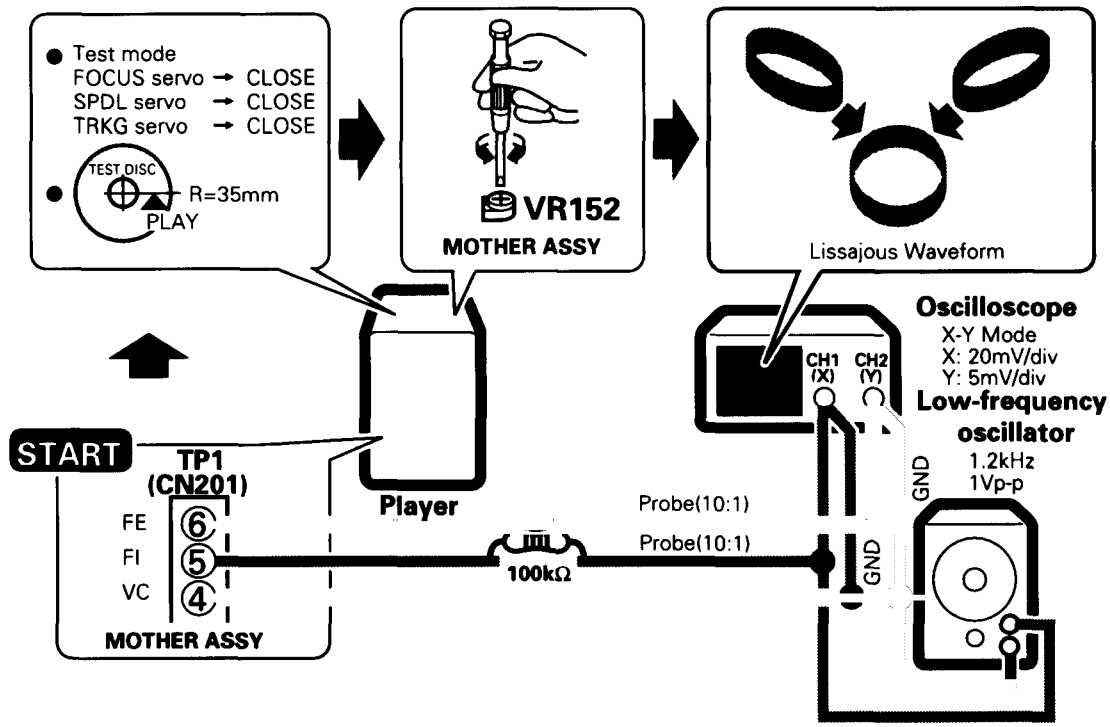


4. RF LEVEL CHECK

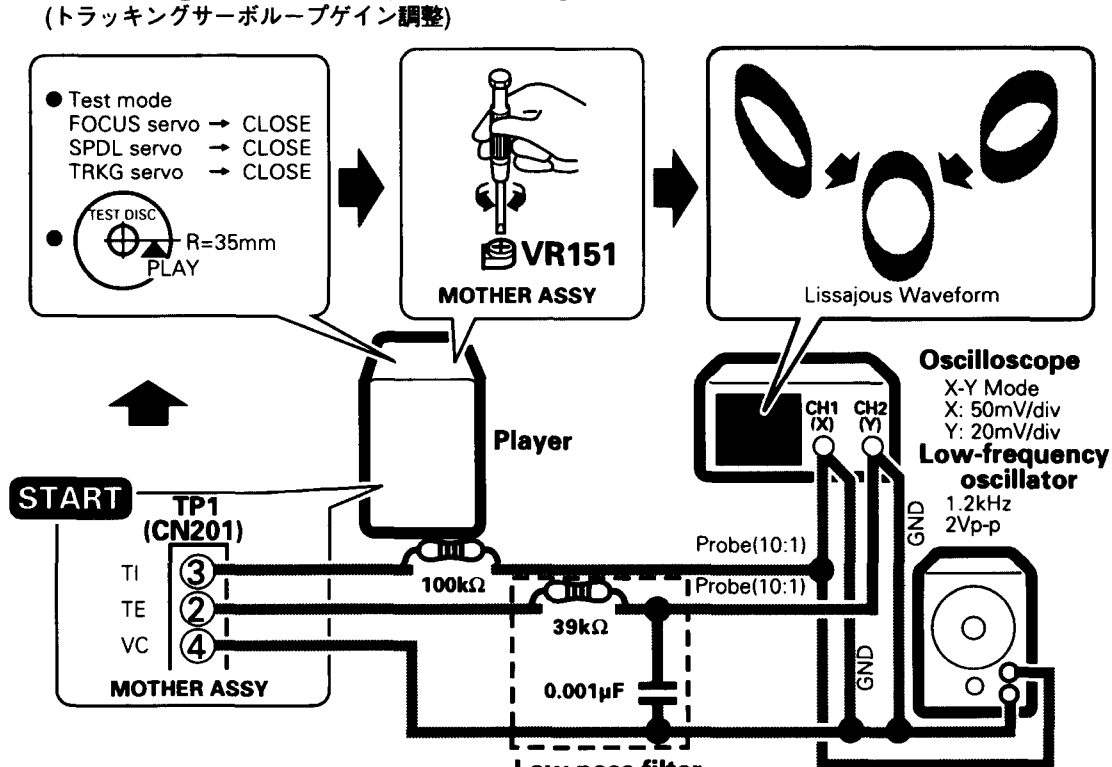
(RFレベル確認)



5. Focus Servo Loop Gain Adjustment
(フォーカスサーボループゲイン調整)



6. Tracking Servo Loop Gain Adjustment
(トラッキングサーボループゲイン調整)



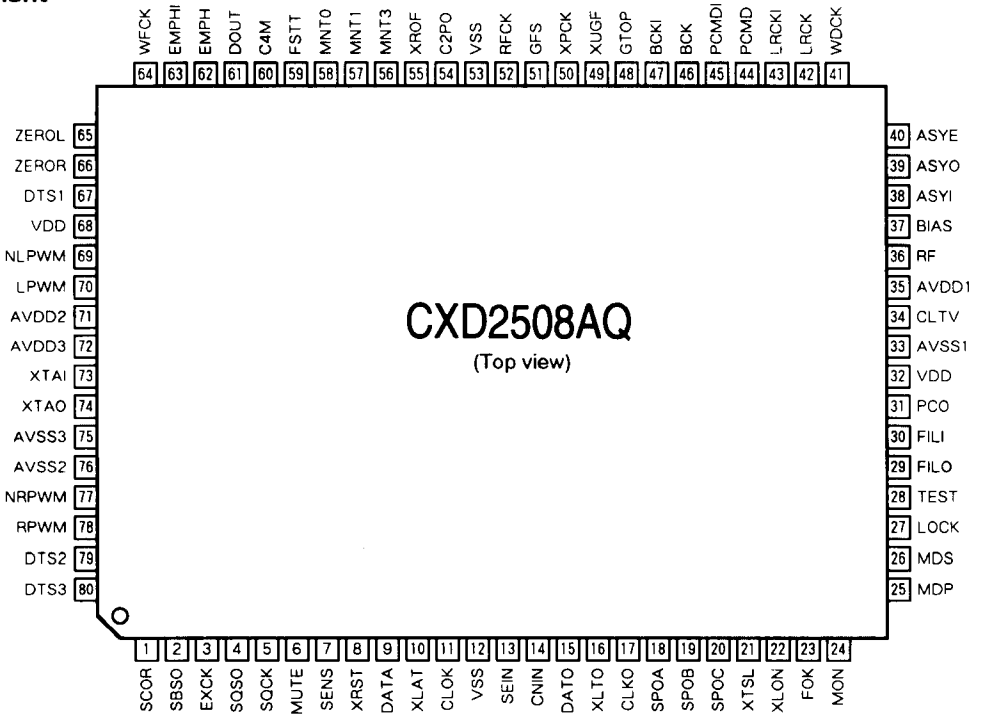
8. IC INFORMATION

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

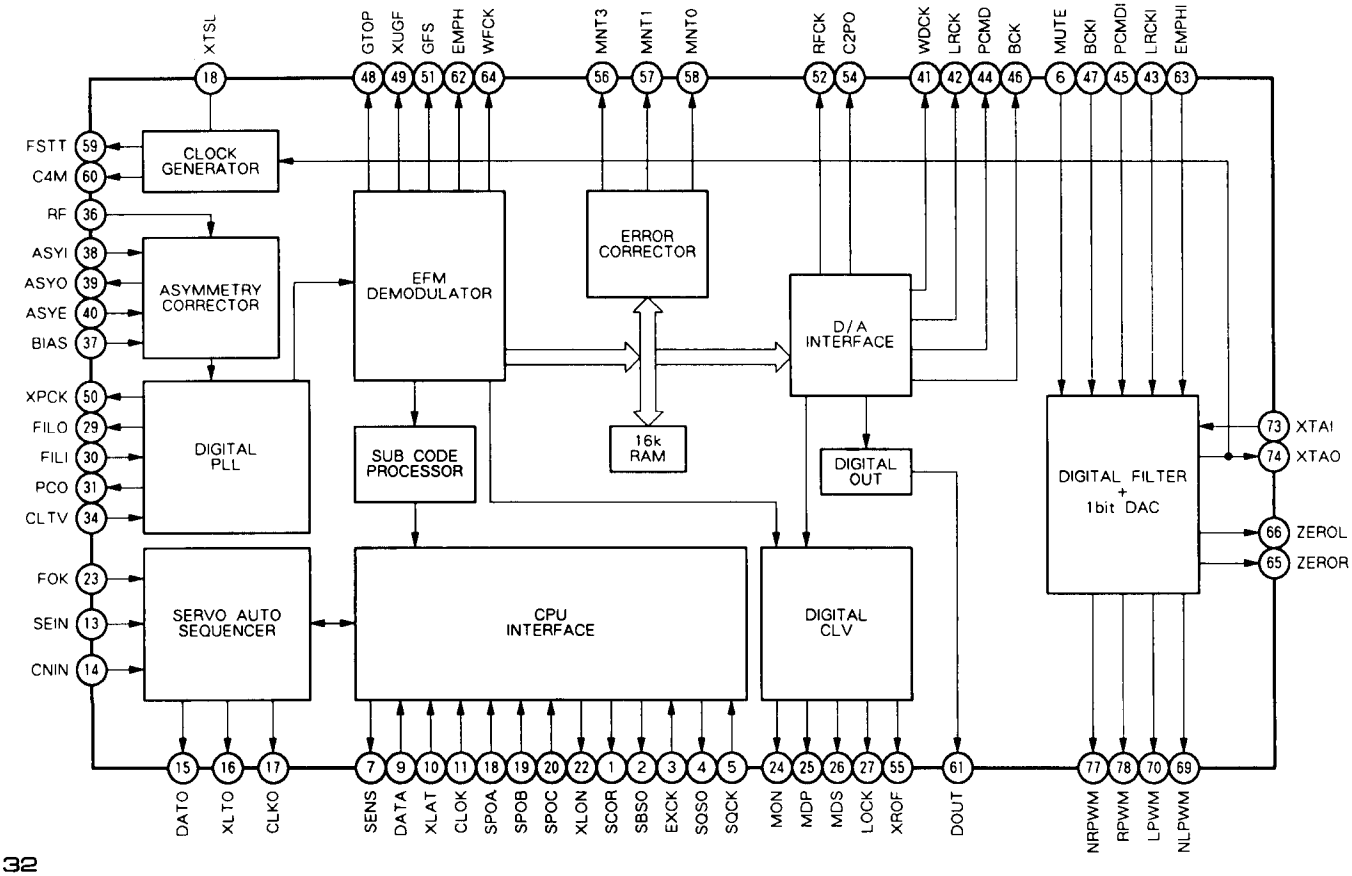
■ CXD2508AQ (IC301 : MOTHER PCB ASSY)

• Digital signal processor for CD

• Pin Arrangement



• Block Diagram



• Pin Function

No.	Pin Name	I/O	Function
1	SCOR	O	H when detecting subcode sync. either S0 or S1.
2	SBSO	O	Serial output of SUBP – W.
3	EXCK	I	Clock input for SBSO lead out.
4	SQSO	O	Serial output of SUBQ 80 bit.
5	SQCK	I	Clock input for SQSO lead out.
6	MUTE	I	Mute for H and release for L (DAC section).
7	SENS	O	SENS output to CPU.
8	XRST	I	System reset. Reset for L.
9	DATA	I	Serial data input from CPU.
10	XLAT	I	Latch input from CPU and latch the serial data at falling edge.
11	CLOK	I	Serial data transferring clock input from CPU.
12	VSS	—	GND.
13	SEIN	I	Sens input from SSP.
14	CNIN	I	Count signal siput of track jump.
15	DATO	O	Serial data output to SSP.
16	XLTO	O	Serial data latch output to SSP and latch at falling edge.
17	CLKO	O	Serial data transferring clock output to SSP.
18	SPOA	I	Microcomputer expansion interface. (Input A)
19	SPOB	I	Microcomputer expansion interface. (Input B)
20	SPOC	I	Microcomputer expansion interface. (Input C)
21	XTSL	I	Xtal selection input pin, L when Xtal is 16.9344MHz and H when Xtal is 33.8688MHz.
22	XLON	O	Microcomputer expansion interface. (Output)
23	FOK	I	Focus OK input pin. Use for SENS output and servo auto sequencer.
24	MON	O	ON/OFF control output of spindle motor.
25	MDP	O	Servo control of spindle motor.
26	MDS	O	Servo control of spindle motor.
27	LOCK	O	Sample the GFS with 460Hz. H output when GFS is H and L output when GFS is L for series of eight times.
28	TEST	I	TEST pin. GND at normal use.
29	FILO	O	Filter output for master PLL (sleave=digital PLL).
30	FILI	I	Filter input for master PLL.
31	PCO	O	Charge pump output for master PLL.
32	VDD	—	Digital power supply for DSP.
33	AVSS1	—	Analog GND for DSP.
34	CLTV	I	VCO control voltage input for master PLL.
35	AVDD1	—	Analog power supply for DSP.
36	RF	I	EFM signal input.
37	BIAS	I	Constant-current input of the asymmetry correction circuit.
38	ASYI	I	Comparison voltage input of the asymmetry correction circuit.
39	ASYO	O	EFM full swing output. (L=VSS, H=VDD).
40	ASYE	I	L : Asymmetry correction OFF, H : Asymmetry correction ON.
41	WDCK	O	D/A interface for 48 bit slot and word clock (2FS) .
42	LRCK	O	D/A interface for 48 bit slot and LR clock (FS).
43	LRCKI	I	LR clock input to DAC (48 bit slot).

No.	Pin Name	I/O	Function
44	PCMD	O	D/A interface and serial data (2'SCOMP, MSB fast)
45	PCMDI	I	Audio data input to DAC (48 bit slot).
46	BCK	O	D/A interface and bit clock.
47	BCKI	I	Bit clock input to DAC (48 bit slot).
48	GTOP	O	GTOP output.
49	XUGF	O	XUGF output.
50	XPCK	O	XPLCK output.
51	GFS	O	GFS output.
52	RFCK	O	RFCK output.
53	VSS	—	GND.
54	C2PO	O	C2PO output.
55	XROF	O	XROF output.
56	MNT3	O	MNT3 output.
57	MNT1	O	MNT1 output.
58	MNT0	O	MNT0 output.
59	FSTT	O	2 divided 3 frequency output of pins 73 and 74.
60	C4M	O	4.2336MHz output.
61	DOUT	O	Digital Out output pin.
62	EMPH	O	H when emphasis of playback disc is present and L for absent.
63	EMPHI	I	Deemphasis ON/OFF of DAC. (H : ON, L : OFF)
64	WFCK	O	WFCK(WRITE FRAME CLOCK) output.
65	ZEROL	O	Blank sound data detecting output. "H"(Lch) when detecting blank sound data.
66	ZEROR	O	Blank sound data detecting output. "H" (Rch) when detecting blank sound data.
67	DTS1	I	Test pin 1 for DAC. Normally L.
68	VDD	—	Digital power supply for DAC.
69	NLPWM	O	Lch PWM output. (Negative phase)
70	LPWM	O	Lch PWM output. (Positive phase)
71	AVDD2	—	Power supply for Lch PWM driver.
72	AVDD3	—	Power supply for Xtal.
73	XTAI	I	Xtal oscillation circuit input of 33.8688MHz
74	XTAO	O	Xtal oscillation circuit output of 33.8688MHz
75	AVSS3	—	GND for Xtal.
76	AVSS2	—	GND for PWM driver.
77	NRPWM	O	Rch PWM output. (Negative phase)
78	RPWM	O	Rch PWM output. (Positive phase)
79	DTS2	I	Test pin 2 for DAC. Normally L.
80	DTS3	I	Test pin 3 for DAC. Normally L.

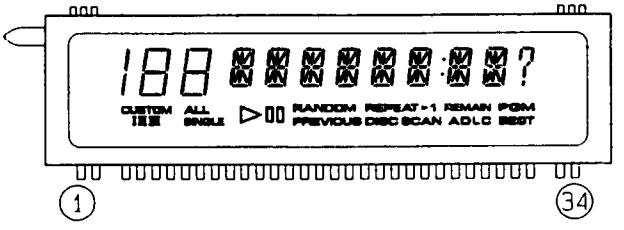
Note:
- PCMD is 2'S complement output of MSB fast.
- GTOP is monitored the protection state of Frame sync. (H : Open the sync. protection window)
- XUGF is frame sync. which is obtained from the EFM signal, is the negative pulse. This signal is former sync. protection.
- XPLCK is made PLL to agree the change point of the clock inversion of EFM PLL, falling edge and EFM signal.
- GFS signal will be H when agreeing with the frame sync. and internal insertion protection timing.
- RFCK is 136 μ period signal which is obtained by Xtal precision.
- C2PO is the signal which indicating the data error state.
- XRAOF signal is generated when 16K RAM is overed the jitter margin of $\pm$ 4F

9. FL INFORMATION

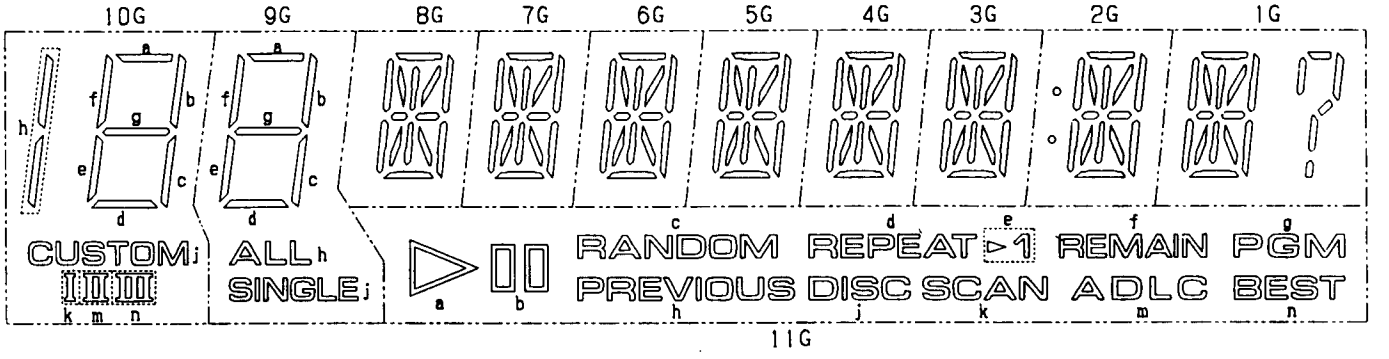
■ PEL1089 (V701 : FUNCTION PCB ASSY)

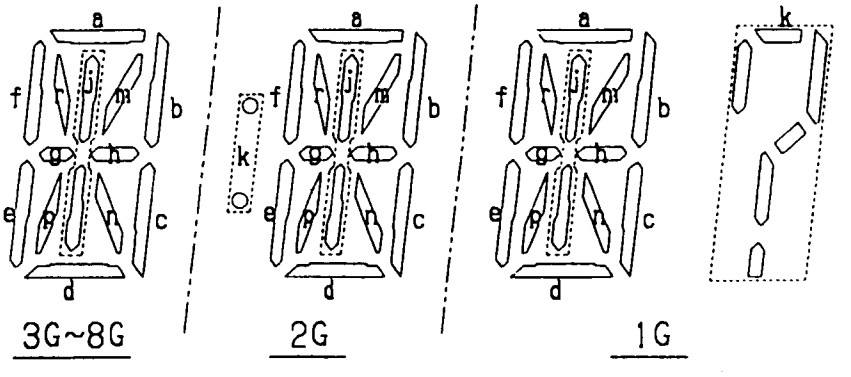
● FL TUBE

PIN LOCATION



ANODE GRID ASSIGNMENT





PIN ASSIGNMENT

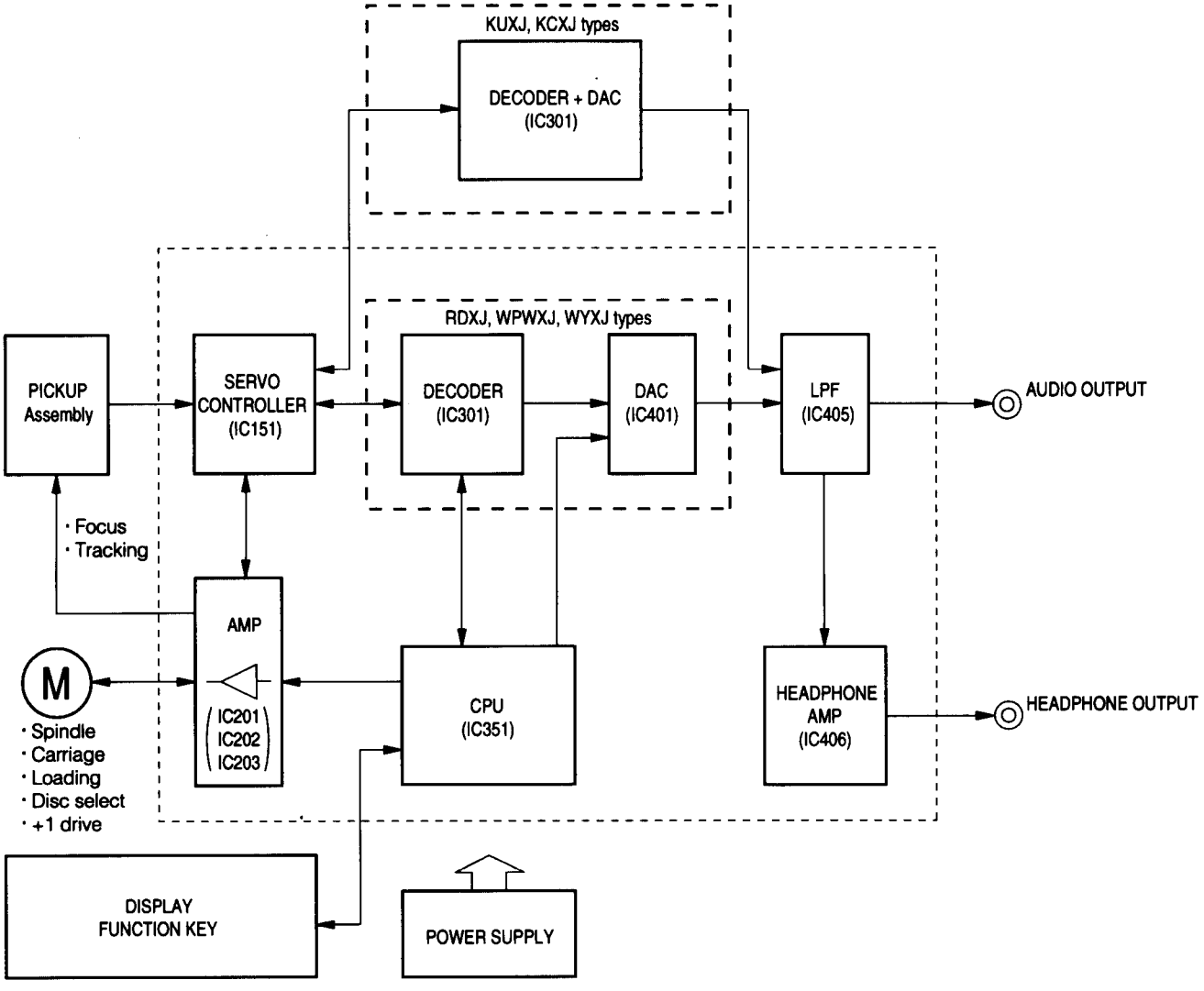
PIN ASSIGNMENT

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Assignment	F	F	NP	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NL	NL	NL	p	r	a

Pin No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Assignment	b	c	d	e	f	g	h	j	k	m	n	NP	F	F

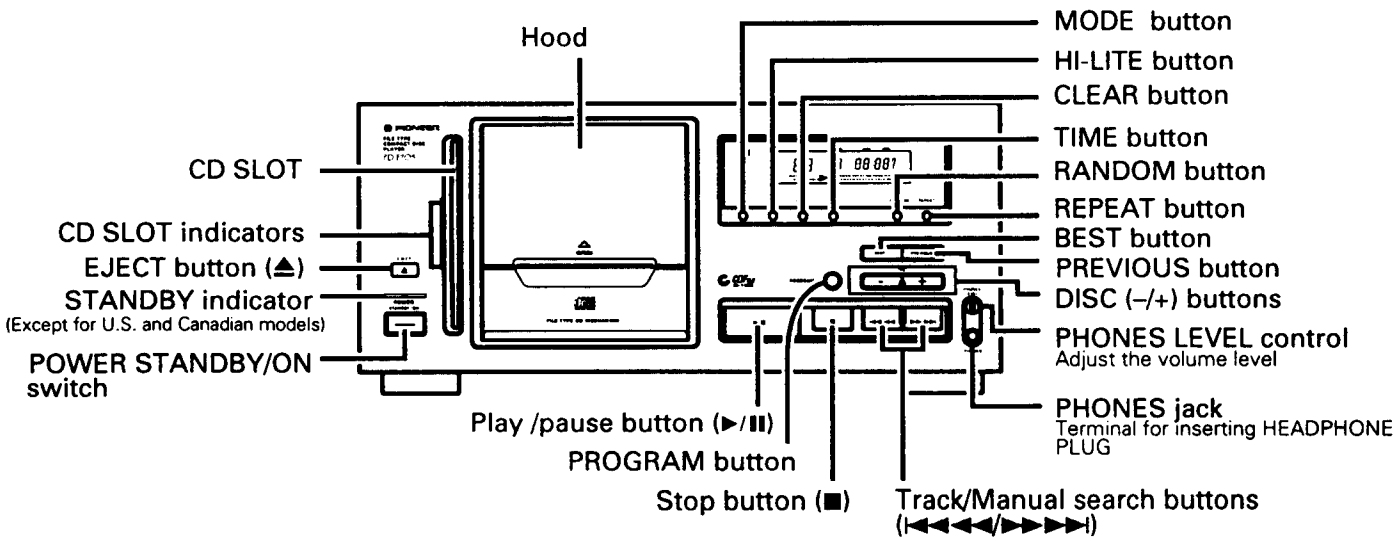
F:Filament 1G~11G:Grid a~h, j, k, m, n, p, r:Anode NP:No Pin NL:No Lead

10. BLOCK DIAGRAM

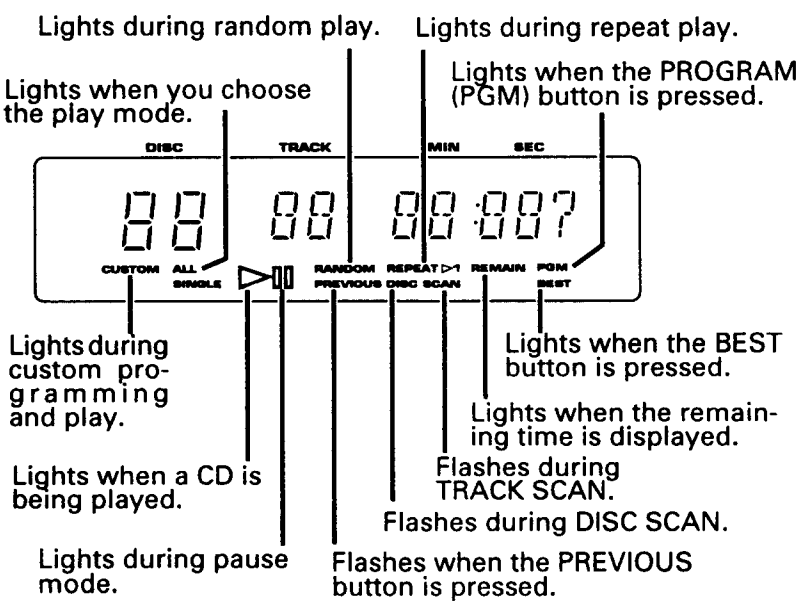


11. PANEL FACILITIES

FRONT PANEL



DISPLAY



12. SPECIFICATIONS

• The following dimensions are for PD-F705/KUXJ.

1. General

Type ..... Compact disc digital audio system
Power requirements
U.S. and Canadian models ..... AC 120V, 60 Hz
European model ..... AC 220 - 240V, 50/60 Hz
Australian model ..... AC 240V, 50/60 Hz
Power consumption
U.S. and Canadian models 13W
European model 14W
Australian model 14W
Operating temperature ..... +5°C - +35°C
(+41°F - +95°F)
Weight (without package) ..... 5.0 kg (11 lb)
External dimensions ..... 420(W) X 316(D) X 190(H) mm
16-9/16(W) X 12-7/16(D) X 7-1/2(H) in.

2. Audio section

Frequency response ..... 2 Hz - 20 Hz
Level difference between channels ..... 1.0 dB or less (EIAJ)
Output voltage ..... 2 ± 0.3 Vrms (EIAJ)
Wow and flutter ..... less than ±0.001 % (W.PEAK)
(below measurable level) (EIAJ)
Channels ..... 2-channel (stereo)

3. Output terminal

Audio line output
Control input/output jacks (U.S., Canadian, Australian and New Zealand models only)
CD-DECK SYNCHRO jack
Optical digital output jack

4. Accessories

- Remote control unit 1
- Size AA/R6P dry cell batteries 2
- Output cable 1
- Control cable (U.S., Canadian, Australian and New Zealand models only) 1
- CD liner notes file (Except for U.S. and Canadian models) 1
- Index label sheet (Except for U.S. and Canadian models) 1
- Operating instructions 1

NOTE:
Specifications and design subject to possible modification without notice, due to improvements.